

**SONY.**

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デジタルカラープリンター  
DIGITAL COLOR PRINTER

**UP-D2550  
UP-D2500**

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**SERVICE MANUAL**  
Vol. 2 (1st Edition)

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## SECTION 7

### SEMICONDUCTOR PIN ASSIGNMENTS

ここに記載されている半導体は、それぞれの機能を等価的に表したもので、なお、互換性のない型名を併記していることがありますので、部品を交換するときは、Spare Partsの章を参照してください。

等価回路はICメーカーのデータブックに従いました。

Semiconductors of which functions are equivalent are described here. For parts replacement, refer to the section of Spare Parts in this manual. The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

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## DIODE

—TOP VIEW—  
10E-2  
10E-2FD

## TRANSISTOR

—TOP VIEW—  
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2SA1226-E4  
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2SA812-T1-M5M6

—TOP VIEW—  
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2SK160A-T1K26

PT480F

—TOP VIEW—  
1S2837-T1  
1SS184

—TOP VIEW—  
2SB798-DL  
2SB798-T1DK

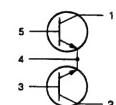
—TOP VIEW—  
DTA124EKA-T146

—TOP VIEW—  
1SS123-T1  
1SS226

—TOP VIEW—  
2SB962-Z-P  
2SB962Z-T2P

—TOP VIEW—  
DTA144EKA-T146  
(R1=47 K, R2=47 K)

—TOP VIEW—  
5 1 XN1501  
4 2 XN1501-TX

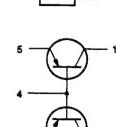


—TOP VIEW—  
1SS352  
1SS352-TPH3

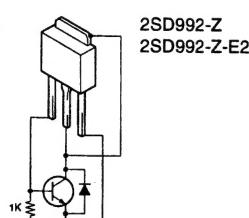
—TOP VIEW—  
2SC1623  
2SC1623-T1-L5L6

—TOP VIEW—  
DTC114EKA-T146  
(R1=10 K, R2=10 K)  
DTC143TKA-T146  
(ROHM) (R1=4.7 K, R2=OPEN)

—TOP VIEW—  
5 1 XN2401  
4 2 XN2401-TX

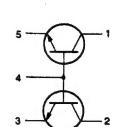


—TOP VIEW—  
1T362A-M20E-T8A



—TOP VIEW—  
DTC124EKA-T146 (R1, R2=22 K)  
DTC144EKA-T146

—TOP VIEW—  
5 1 XN2501  
4 2 XN2501-TX



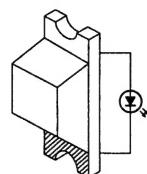
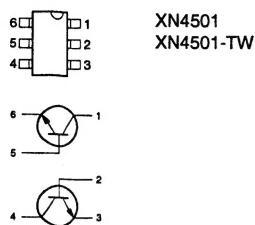
—TOP VIEW—  
DTZ4.7C  
UDZ-TE-17-4.7B

—TOP VIEW—  
2SD999-CLK  
2SD999-T1-CLK

## TRANSISTOR, LED, OTHERS

### LED

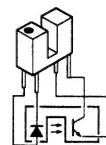
—TOP VIEW—



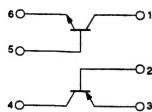
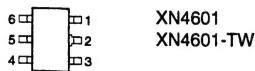
AA1101W ; ORANGE  
PG1101W-TR ; GREEN

### OTHERS

GP1S54  
GP1S58V



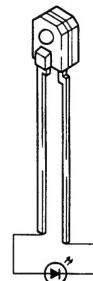
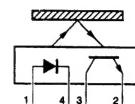
—TOP VIEW—



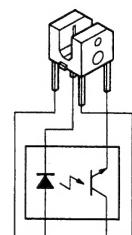
GL1EG111 ; YELLOWISH GREEN



GP2S40K



GL480 ; INFRARED



RPI-352



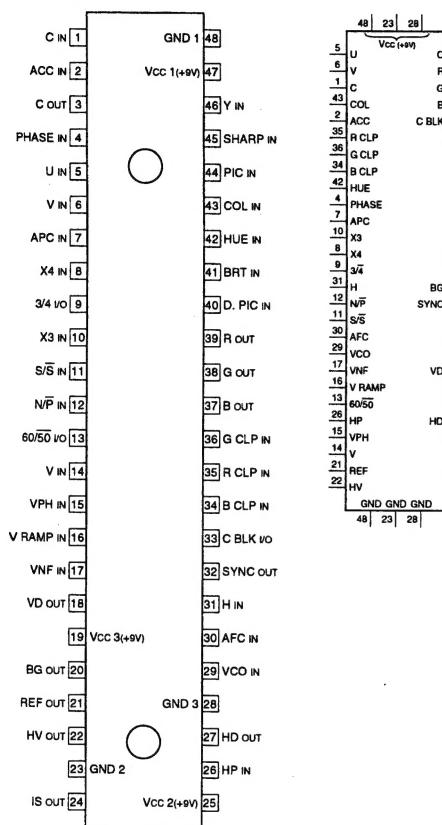
SLP-355B-51  
SLP-655B-51

IC

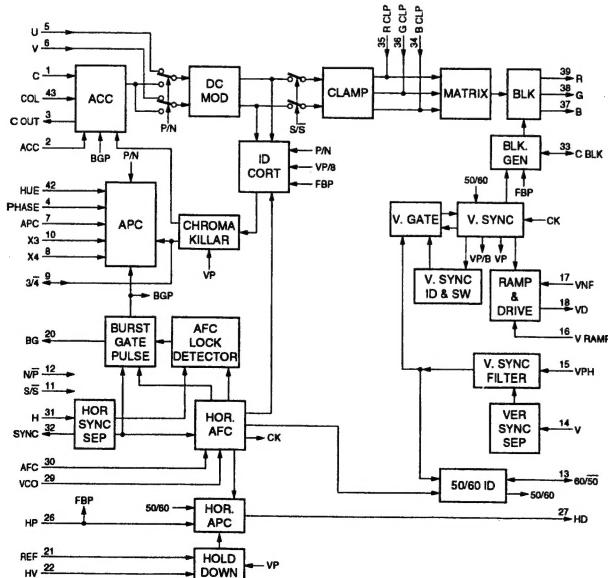
CXA1213BS (SONY)

## PAL/NTSC COLOR DECODER

—TOP VIEW—

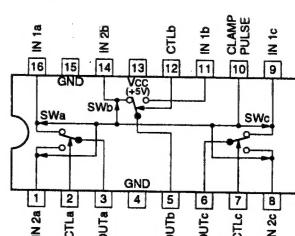


<b>INPUT</b>	
ACC	: AUTO CHROMA CONTROL
AFC	: AFC LOOP FILTER
APC	: LAG LEAD FILTER
B CLP	: B-Y SIGNAL COLOR CLAMP OR SECAM B-Y SIGNAL IN
BRT	: BRIGHT CONTROL VOLTAGE
C	: CHROMA IN
COL	: COLOR CONTROL VOLTAGE
D. PIC	: NEW DYNAMIC PICTURE BLACK PEAK HOLD
G CLP	: G-Y SIGNAL COLOR CLAMP OUTPUT
H	: HSYNC SEPARATOR
HP	: FBP INPUT
HUE	: NTSC HUE CONTROL VOLTAGE INPUT
N/P	: NTSC/PAL
PHASE	: PAL PHASE CONTROL
PIC	: PICTURE CONTROL VOLTAGE
R CLP	: R-Y SIGNAL COLOR CLAMP OR SECAM R-Y SIGNAL IN
SHARP	: SHARPNESS CONTROL VOLTAGE
S/S	: SECAM/SECAM
U	: U SIGNAL
V	: V SIGNAL
VCO	: OSCILLATING ELEMENT CONNECT
V	: VERTICAL SYNC SEPARATOR
VNF	: VERTICAL DEFLECTION FEEDBACK
VPH	: V SYNC SLICE LEVEL DETECT
V RAMP	: VERTICAL DEFLECTION SAWTOOTH WAVEFORM GENERATE
X3	: CHROMA VCO CRYSTAL (4.43MHz)
X4	: CHROMA VCO CRYSTAL (4.43MHz)
Y	: Y SIGNAL INPUT
<b>OUTPUT</b>	
BG	: GATE PULSE
B	: B SIGNAL
C	: CHROMA OUT
G	: G SIGNAL
HD	: HORIZONTAL DRIVE
HV	: OVERTVOLTAGE DETECT
IS	: REFERENCE CURRENT GENERATE
REF	: REFERENCE VOLTAGE
R	: R SIGNAL
SYNC	: SYNC WAVEFORM FORMATION
VD	: FEED BACK WAVEFORM OR SAWTOOTH WAVEFORM COMPARE
<b>INPUT/OUTPUT</b>	
3/4	: VCO OSCILLATE FREQUENCY DISCRIMINATOR INPUT (3.58MHz)
OUTPUT (4.43MHz)	
60/50	: VERTICAL FREQUENCY 50Hz/60Hz DISCRIMINATOR INPUT (60Hz)
OUTPUT (50Hz)	
C BLK	: C BLANKING INPUT OR BLANKING SIGNAL INPUT



BA7606F (ROHM)  
BA7606F-T2

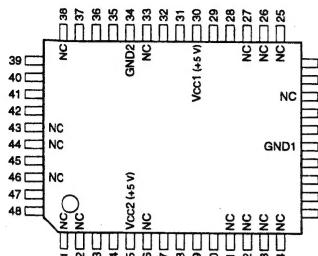
**3-INPUT VIDEO SWITCH FOR VTR**  
**—TOP VIEW—**



CLT	OUT
0	IN 2
1	IN 1

0 : LOW LEVEL  
1 : HIGH LEVEL

## CXA1437Q (SONY)

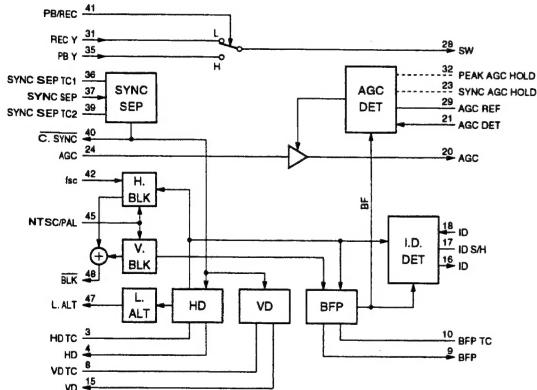
PULSE GENERATOR  
—TOP VIEW—

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	—	NC	13	—	NC	25	—	NC	37	I	SYNC SEP
2	—	NC	14	—	NC	26	—	NC	38	—	NC
3	—	HD TC	15	O	VD	27	—	NC	39	—	SYNC SEP TC2
4	O	HD	16	O	ID	28	O	SW	40	O	C. SYNC
5	—	VCC2	17	—	ID S/H	29	—	AGC REF	41	I	PB/REC
6	—	NC	18	I	ID	30	—	Vcc1	42	I	fsc
7	—	I REF	19	—	GND1	31	I	REF Y	43	—	NC
8	—	VD TC	20	O	AGC OUT	32	—	PEAK AGC HOLD	44	—	NC
9	O	BFP	21	I	AGC DET	33	—	NC	45	I	NTSC/PAL
10	—	BFP TC	22	—	NC	34	—	GND2	46	—	NC
11	—	NC	23	—	SYNC AGC HOLD	35	I	PB Y	47	O	L. ALT
12	—	NC	24	I	AGC	36	—	SYNC SEP TC1	48	O	BLK

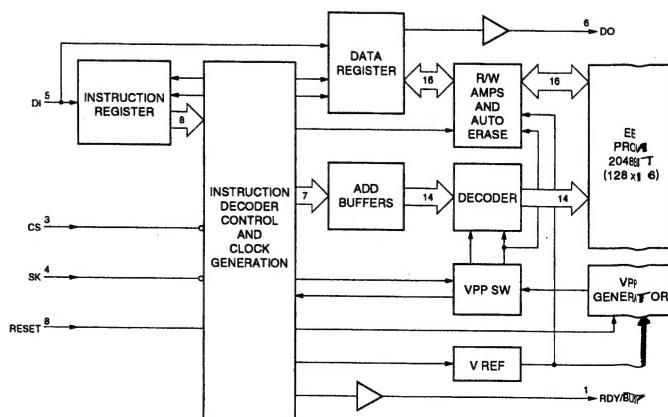
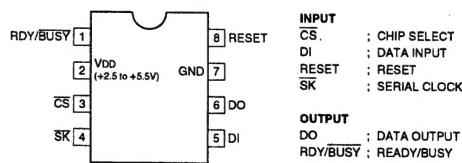
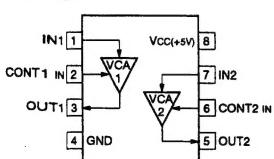
**INPUT**  
 AGC DET : AGC DET  
 AGC : AGC  
 fsc : H BLK fsc (Y: NONSYNC)  
 ID : ID DET (L: R-Y, H: B-Y)  
 NTSC/PAL : BLK NTSC/PAL SWITCH (L: NTSC, H: PAL)  
 PB/REC : PB/REC SWITCH (L: PB, H: REC)  
 PB Y : PB Y SWITCH  
 REC Y : REC Y SWITCH  
 SYNC SEP : SYNC SEPARATOR

**OUTPUT**  
 AGC : AGC  
 BFP : BFP (BLANKING SIGNAL IN V BLK)  
 BLK : COMPOSITE BLANKING SIGNAL  
 C. SYNC : C. SYNC  
 HD : HD PULSE  
 ID : ID DETECT (PLAYBACK COLOR DIFFERENCE SIGNAL) (L: R-Y, H: B-Y)  
 L. ALT : HD 1/2 COUNT DOWN  
 SW : SWITCH  
 VD : VD PULSE

**OTHER**  
 AGC REF : AGC LEVEL ADJUSTMENT  
 BFP TC : BFP TIME CONSTANT  
 HD TC : HALF H KILLER MONO-MULTI TIME CONSTANT  
 ID S/H : ID DET SAMPLE HOLD CAPACITOR  
 I REF : REFERENCE CURRENT (VD, HD, BFP TIME CONSTANT)  
 PEAK AGC HOLD : PEAK AGC TIME CONSTANT  
 SYNC AGC HOLD : SYNC AGC TIME CONSTANT  
 SYNC SEP TC1 : SYNC TIP POSITION DETECT  
 SYNC SEP TC2 : FEED BACK CLAMP TIME CONSTANT  
 VD TC : VD DET TIME CONSTANT



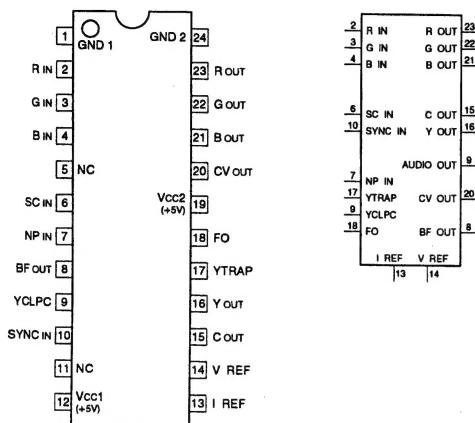
## AK6420AF-E2 (ASAHI KASEI MICRO SYSTEM)

C-MOS 2048 (128 x 16)-BIT ELECTRICALLY ERASABLE PROM  
—TOP VIEW—CXA1211M (SONY)  
CXA1211M-T4ELECTRONIC VOLUME  
—TOP VIEW—

**CXA1645M (SONY)FLAT PACKAGE**  
**CXA1645M-T6**

**RGB COMPOSITE ENCODER**

—TOP VIEW—



**INPUT**

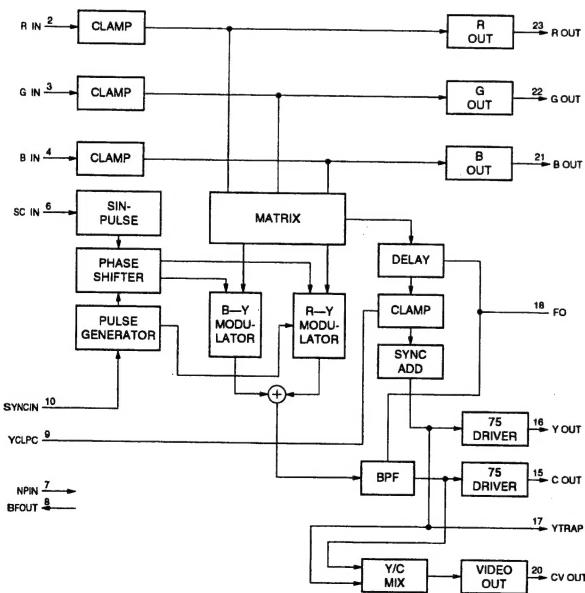
B IN : ANALOG B  
G IN : ANALOG G  
NP IN : NTSC/PAL MODE SELECT  
R IN : ANALOG R  
SC IN : SUB-CARRIER  
SYNC IN : COMPOSITE SYNC SIGNAL

**OTHER**

FO : fo ADJUST FOR INNER FILTER  
IREF : REFFERENCE CURRENT  
VREF : REFFERENCE VOLTAGE  
YCLPC : Y SIGNAL CLAMP CAPACITOR  
YTRAP : Y SIGNAL CROSS-COLOR TRAP

**OUTPUT**

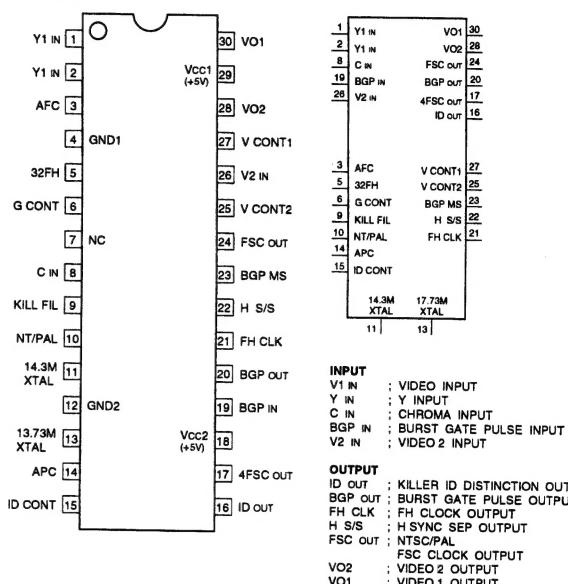
B OUT : ANALOG B  
BF OUT : BF PULSE FOR MONITOR  
C OUT : CHROMA SIGNAL  
CV OUT : COMPOSITE VIDEO  
G OUT : ANALOG G  
R OUT : ANALOG R  
Y OUT : Y SIGNAL



**CXA1686M (SONY)FLAT PACKAGE**  
**CXA1686M-T6**

**4FSC CLOCK GENERATOR**

—TOP VIEW—

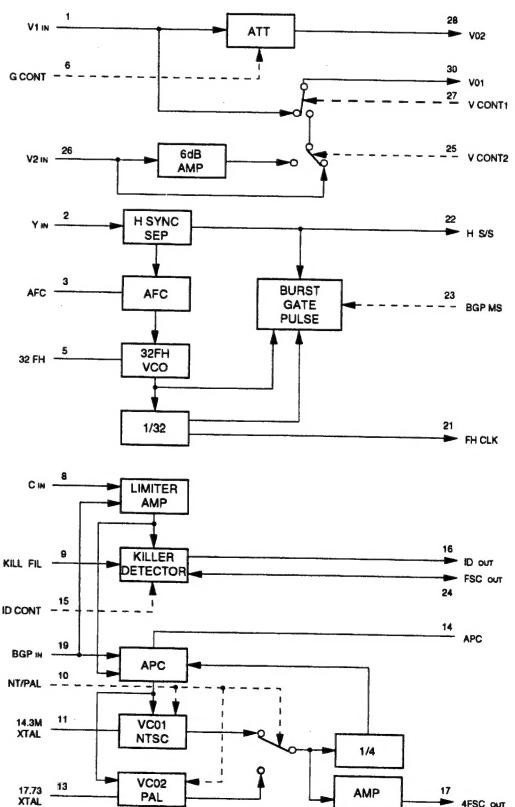


**INPUT**

V1 IN : VIDEO INPUT  
Y IN : Y INPUT  
C IN : CHROMA INPUT  
BGP IN : BURST GATE PULSE INPUT  
V2 IN : VIDEO 2 INPUT

**OUTPUT**

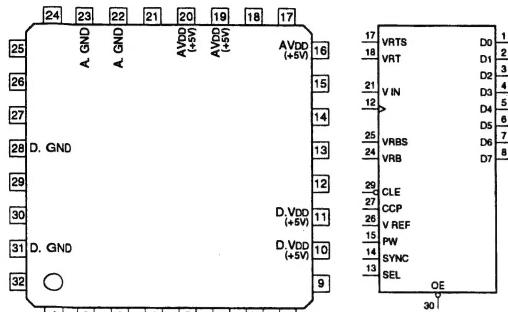
ID OUT : KILLER ID DISTINCTION OUTPUT  
BGP OUT : BURST GATE PULSE OUTPUT  
FH CLK : FH CLOCK OUTPUT  
H S/S : H SYNC SEP OUTPUT  
FSC OUT : NTSC/PAL FSC CLOCK OUTPUT  
V2 OUT : VIDEO 2 OUTPUT  
VO1 : VIDEO 1 OUTPUT



**CXD1176Q (SONY)**  
**CXD1176Q-T4**

## C-MOS 8-BIT 20MSPS VIDEO A / D CONVERTER

—TOP VIEW—



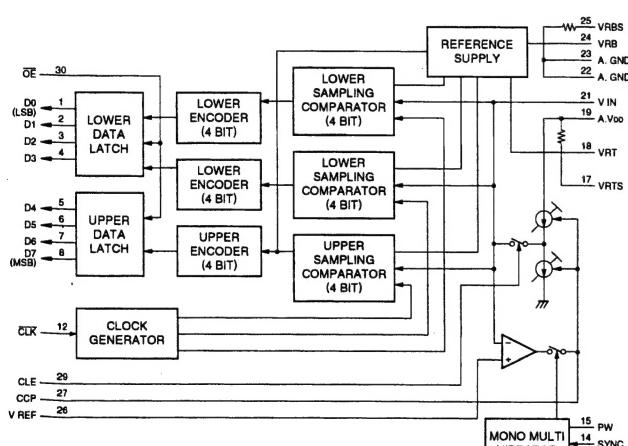
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	D0(LSB)	17	I	VRTS
2	O	D1	18	I	VRT
3	O	D2	19	—	A.Vdd
4	O	D3	20	—	A.Vdd
5	O	D4	21	I	V IN
6	O	D5	22	—	A.GND
7	O	D6	23	—	A.GND
8	O	D7(MSB)	24	I	VRB
9	—	NC	25	I	VRBS
10	—	D.Vdd	26	I	VREF
11	—	D.Vdd	27	I	CCP
12	I	CLK	28	—	D.GND
13	I	SEL	29	I	CLE
14	I	SYNC	30	I	OE
15	I	PW	31	—	D.GND
16	—	A.Vdd	32	—	NC

**INPUT**

- CCP : CLAMP CONTROL VOLTAGE FOR INTEGRATOR
- CLE : CLAMP ENABLE
- CLK : CLOCK
- CLP : CLAMP PULSE
- OE : OUTPUT ENABLE
- PW : PULSE WIDTH FOR MONO MULTI
- SEL : TRIGGER SELECT
- SYNC : TRIGGER PULSE FOR MONO MULTI
- VIBRATOR : VIBRATOR
- V IN : ANALOG
- VRB : REFERENCE VOLTAGE (BOTTOM)
- VRBS : SELF REFERENCE VOLTAGE SHORT (+0.5 V/BOTTOM)
- VREF : VOLTAGE REFERENCE FOR CLAMP
- VRT : REFERENCE VOLTAGE (TOP)
- VRTS : SELF REFERENCE VOLTAGE SHORT (+2.6 V/TOP)

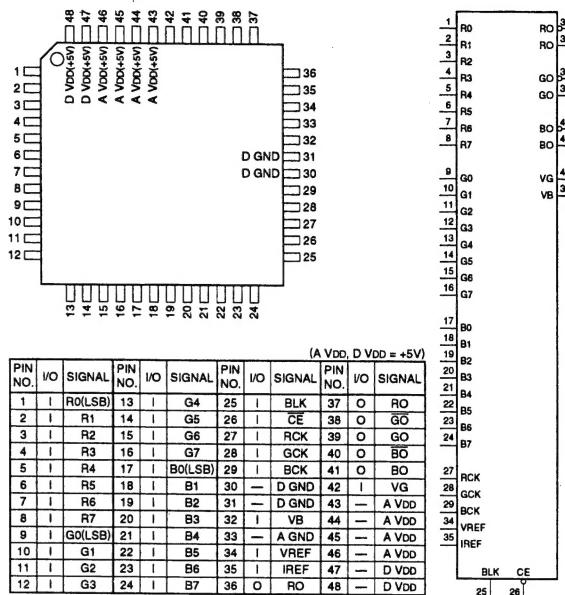
**OUTPUT**

D0 - D7 : DATA


**CXD1178Q (SONY)**  
**CXD1178Q-T6**

## C-MOS 3CH 8-BIT 40MHz D / A CONVERTER

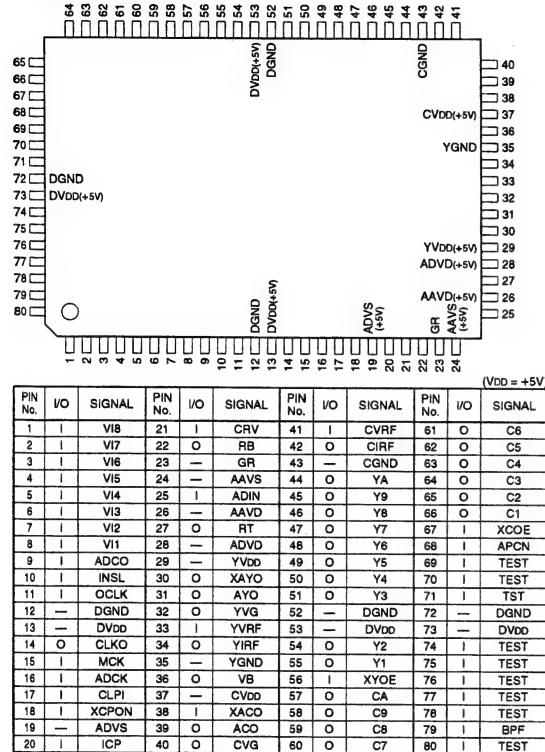
—TOP VIEW—



## CXD2023Q (SONY)

## C-MOS DIGITAL COMB FILTER

—TOP VIEW—

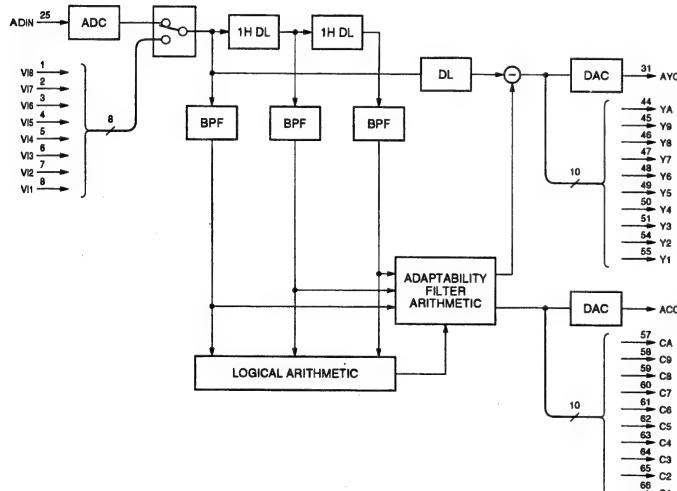


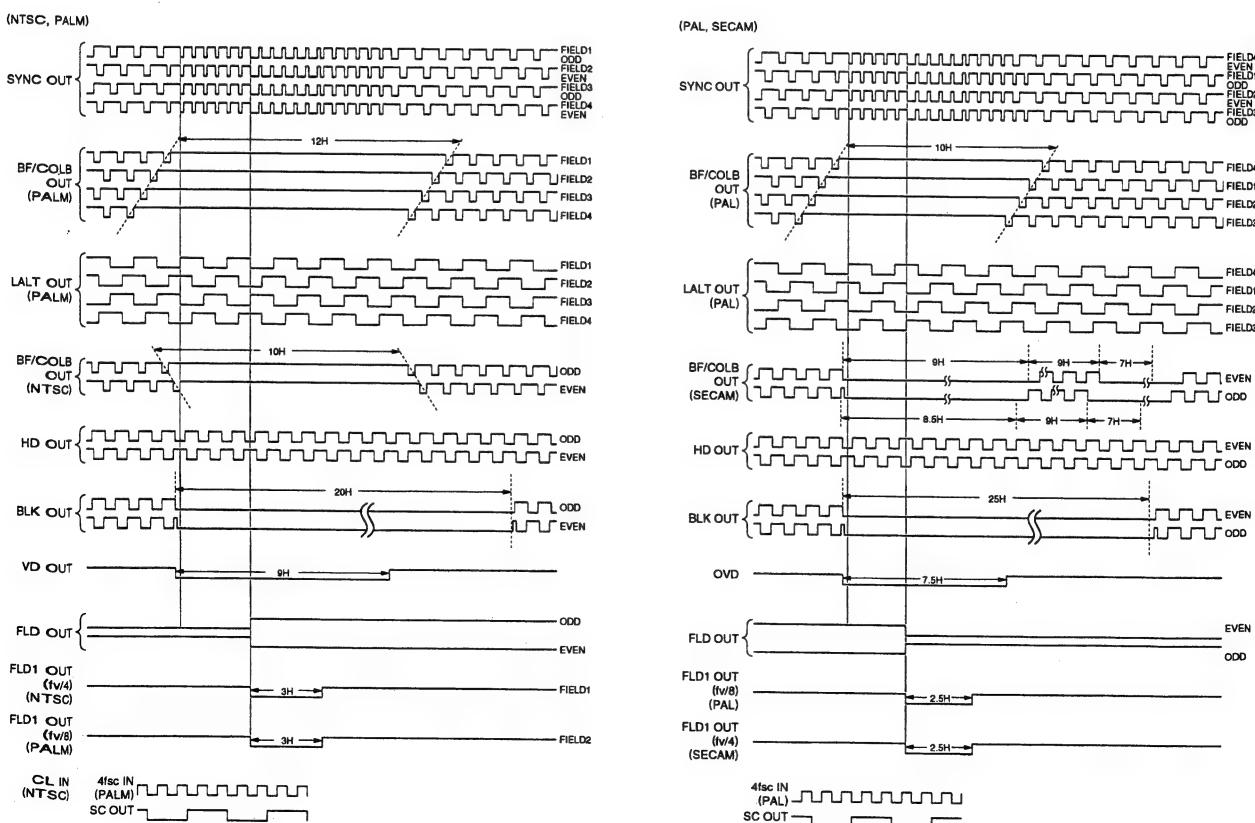
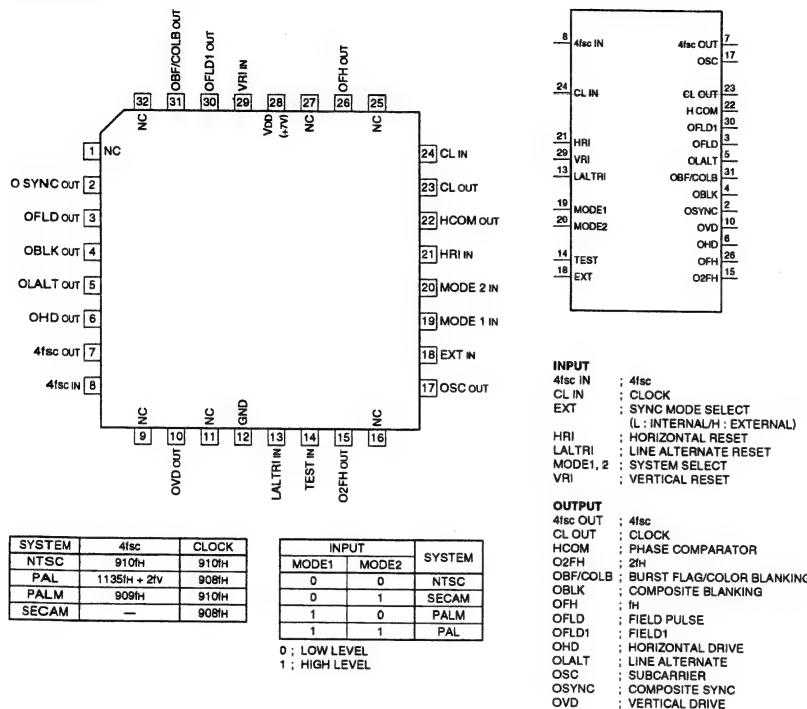
INPUT	DEFINITION
ADCK	AD CONVERTER CLOCK
ADCO	H : AD CONVERTER L : USUALLY MODE
ADIN	COMB FILTER ANALOG
APCN	APERTURE CORRECTION H : APERTURE EFFECT L : STANDARD MODE
BPF	H : BPF SEPARATION FIXATION L : STANDARD MODE
CLPI	AD CONVERTER CLAMP PULSE
CRV	CLAMP REFERENCE VOLTAGE
CVRF	ANALOG CHROMA SIGNAL
ICP	CLAMP CONTROL
INSL	INPUT SELECT
MCK	CLOCK
OCLK	CLOCK AMP.
TEST	TEST
TST	Y OUTPUT SLEW MODE H : COMPOSITE VIDEO SIGNAL L : Y/C SEPARATION MODE
VI1 - VI8	DIGITAL INPUT
XACO	ACO INVERT CURRENT
XCPON	H : CLAMP FUNCTION "OFF" L : CLAMP FUNCTION
XCOE	DIGITAL CHROMA SIGNAL CONTROL H : HIGH IMPEDANCE L : ENABLE
XYOE	DIGITAL Y SIGNAL CONTROL H : HIGH IMPEDANCE L : ENABLE
YVRF	ANALOG Y SIGNAL

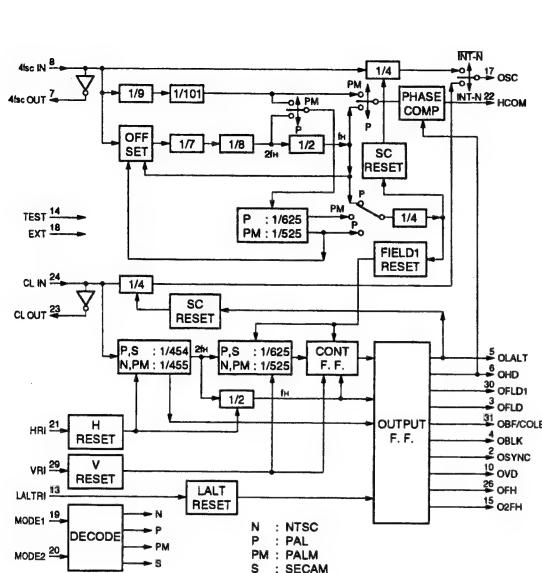
  

OUTPUT	DEFINITION
ACO	ANALOG CHROMA SIGNAL
AYO	ANALOG Y SIGNAL
CA, C1 - C9	DIGITAL CHROMA SIGNAL
CIRF	SETTING FOR ANALOG CHROMA OUTPUT
CLKO	CLOCK AMP.
CVG	VOLTAGE FOR ANALOG CHROMA SIGNAL
RB	REFERENCE VOLTAGE (BOTTOM) STANDARD (0.5V)
RT	REFERENCE VOLTAGE (TOP) STANDARD (2.6V)
VB	VOLTAGE BIAS
XAYO	AYO INVERT CURRENT
YA, Y1 - Y9	DIGITAL Y SIGNAL
YIRF	SETTING FOR ANALOG Y OUTPUT
YVG	VOLTAGE FOR ANALOG Y SIGNAL

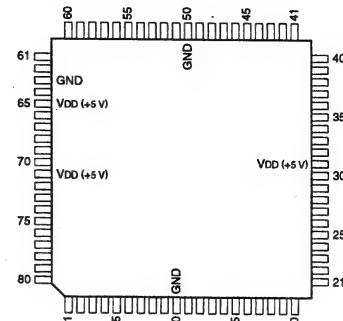
OTHER	DEFINITION
AAVD	AD CONVERTER ANALOG POWER
AAVS	AD CONVERTER ANALOG GND
ADVS	AD CONVERTER DIGITAL GND
ADVD	AD CONVERTER DIGITAL POWER
GR	GARD RING
CVSS	CDA CONVERTER GND
CVDD	CDA CONVERTER POWER
YVDD	YDA CONVERTER POWER
YVSS	YDA CONVERTER ANALOG GND



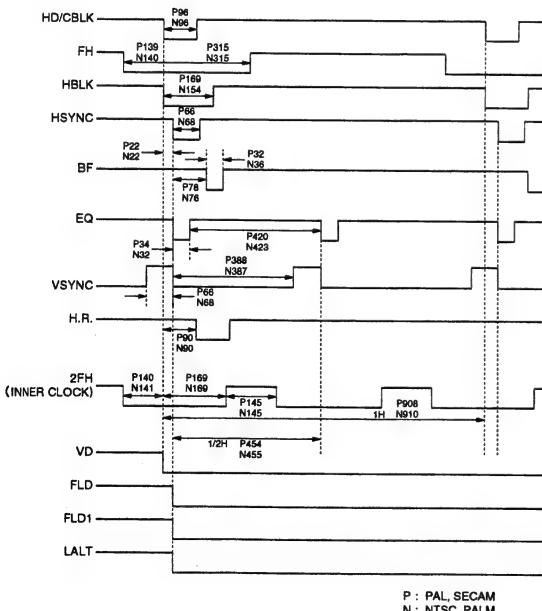
CXD1217Q (SONY)  
CXD1217Q-T4C-MOS SYNC GENERATOR  
—TOP VIEW—



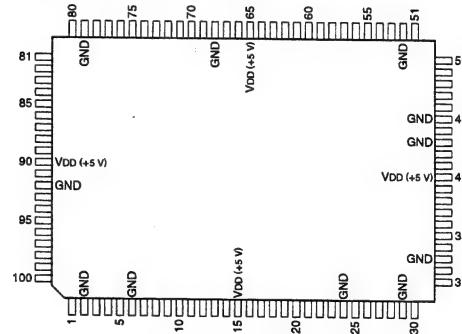
CXD8636Q (SONY)

C-MOS GATE ARRAY  
—TOP VIEW—

(VDD = +5 V)											
PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL
1	I	TSTSEL	17	O	TSTCOMPAS	33	O	TDATA9	49	I	DCLK
2	I	TSTLOAD	18	O	TSTCOMPB	34	O	TDATA10	50	—	GND
3	O	NHEADACTIVE	19	O	TSTCOMPAT	35	O	TDATA11	51	I	NDMAON
4	O	PRINTPULSE	20	O	TDATA8	36	O	TDATA12	52	O	NDMAREQ
5	I	PORTENABLE0	21	O	HDDATA1	37	O	TDATA13	53	O	TDATA14
6	I	PORTENABLE1	22	O	HDDATA2	38	I	NRESET	54	O	NCLATCH
7	I	PORTENABLE2	23	O	HDDATA3	39	I	NHEADACTIVEF	55	I	TADD2
8	I	PRINTTYPE0	24	O	HDDATA4	40	I	PRINTPULSEF	56	I	TADD3
9	I	PRINTTYPE1	25	O	HDDATA5	41	I	DATA7	57	I	PRINTPULSE
10	—	GND	26	O	HDDATA6	42	I	DATA8	58	I	NHEADACTIVEV
11	I	TESTSEL	27	O	HDDATA7	43	I	DATA9	59	I	TADD4
12	O	TSTCOMP0	28	O	HDDATA8	44	I	DATA4	60	I	TADD5
13	O	TSTCOMP1	29	O	NHDLATCH	45	I	DATA3	61	I	TADD6
14	O	TSTCOMP2	30	O	HDCLK	46	I	DATA2	62	I	CLK1S4
15	O	TSTCOMP3	31	—	VDD	47	I	DATA1	63	—	GND
16	O	TSTCOMP4	32	O	NHDSTB	48	I	DATA0	64	I	CLK

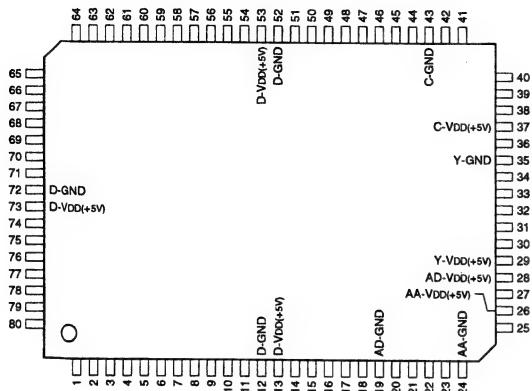
P : PAL, SECAM  
N : NTSC, PALM

CXD8653Q (SONY)

C-MOS PICTURE QUALITY CONTROL  
—TOP VIEW—

PIN No.	I/O	SIGNAL									
1	I	NRES	21	I/O	DB5	41	O	PD1	61	O	STS8
2	—	GND	22	I/O	DB6	42	O	PD0	62	O	STS9
3	I	NCS	23	I/O	DB7	43	—	GND	63	O	STS10
4	I	NRD	24	—	GND	44	O	PDCK	64	O	STS11
5	I	NWR	25	I	NHAIN	45	—	GND	65	—	Vdd
6	—	GND	26	I	PPIN	46	O	PDACT	66	O	XG
7	I	ADB0	27	O	STS0	47	I	PDREQ	67	I	XI
8	I	ADB1	28	O	STS1	48	I	TIN1	68	—	GND
9	I	ADB2	29	—	GND	49	I	TIN2	69	O	STS12
10	I	ADB3	30	I	TIN0	50	I	TIN3	70	O	STS13
11	I	ADB4	31	O	PPOUT	51	I	TIN4	71	O	STS14
12	I	ADB5	32	O	NHAOUT	52	—	GND	72	O	STS15
13	I	ADB6	33	—	GND	53	I	TIN5	73	O	STS16
14	I	ADB7	34	O	PD7	54	I	TIN6	74	O	STS17
15	—	Vdd	35	O	PD6	55	O	STS2	75	O	STS18
16	I/O	DB0	36	O	PD5	56	O	STS3	76	I	HNUM0
17	I/O	DB1	37	O	PD4	57	O	STS4	77	I	HNUM1
18	I/O	DB2	38	O	PD3	58	O	STS5	78	I	TIN7
19	I/O	DB3	39	O	PD2	59	O	STS6	79	—	GND
20	I/O	DB4	40	—	Vdd	60	O	STS7	80	I	NPREAT

## CXD2024AQ (SONY)

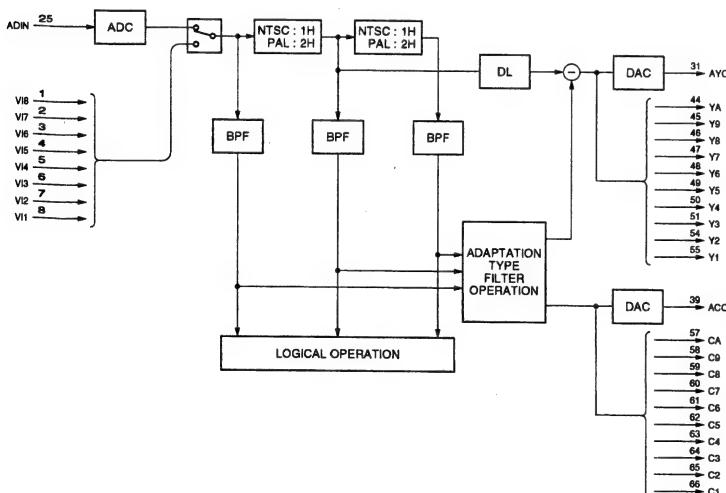
C-MOS DIGITAL COMB FILTER (NTSC/PAL)  
—TOP VIEW—

(VDD = +5V)								
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	VI8	21	I	CRV	41	I	CVRF
2	I	VI7	22	O	RB	42	O	CIRF
3	I	VI6	23	—	GR	43	—	C-GND
4	I	VI5	24	—	AA-GND	44	O	YA
5	I	VI4	25	I	ADIN	45	O	Y9
6	I	VI3	26	—	AA-VDD	46	O	Y8
7	I	VI2	27	O	RT	47	O	Y7
8	I	VI1	28	—	AD-VDD	48	O	Y6
9	I	ADC0	29	—	Y-VDD	49	O	Y5
10	I	INSL	30	I	XAYO	50	O	Y4
11	I	OCLK	31	O	AYO	51	O	Y3
12	—	D-GND	32	O	YVG	52	—	D-GND
13	—	D-VDD	33	I	YVRI	53	—	D-VDD
14	O	CLK0	34	O	YIRF	54	O	Y2
15	I	MCK	35	—	Y-GND	55	O	Y1
16	I	ADCK	36	O	VB	56	I	XYOE
17	I	CLPI	37	—	C-VDD	57	O	CA
18	I	XCPON	38	I	XACO	58	O	C9
19	—	AD-GND	39	O	ACO	59	O	C8
20	I	ICP	40	O	CVG	60	O	C7

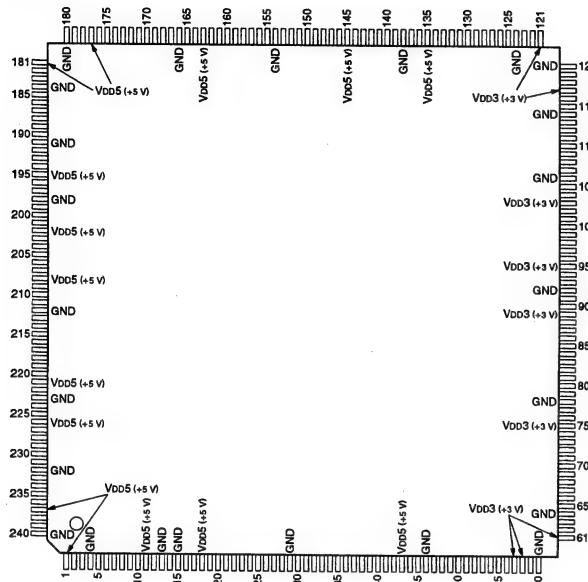
INPUT	
ADCK	CLOCK FOR A/D CONVERTER
ADCO	A/D CONVERTER OUTPUT SELECT (H : DIGITAL OUTPUT MODE, L : STANDARD MODE)
ADIN	COMB FILTER ANALOG DATA
APCN	APERTURE COMPENSATION (H : FREQUENCY RESPONSE DEGRADATION COMPENSATE BY APERTURE EFFECT, L : STANDARD)
BPF	Y/C SEPARATE PROCESS MODE SETTING (H : BPF SEPARATE MODE, L : ADAPTABILITY PROCESS MODE)
CLPI	CLAMP PULSE FOR A/D CONVERTER
CRV	CLAMP REFERENCE VOLTAGE
CVRF	FULL SCALE VALUE SETTING OF ANALOG CHROMA SIGNAL
ICP	VOLTAGE INTERTRIGATION FOR CLAMP CONTROL
INSL	INPUT DATA SELECT OF COMB FILTER (H : DIGITAL INPUT, L : ANALOG INPUT)
MCK	MASTER CLOCK
NTPL	NTSC/PAL MODE SETTING (H : PAL, L : NTSC)
OCLK	CLOCK AMPLIFIER
PNR	DOT INTERFERENCE (PAL H : MINIMUM, L : BEFORE IMPROVEMENT NTSC : L FIXED)
RATI	RATIO SETTING (H : PAL (WHEN THE PNR IS ON, SET TO L FORCED), L : NTSC)
TEST	TEST (NORMAL : L FIXED)
TST	Y OUTPUT THROUGH MODE (H : COMPOSITE VIDEO SIGNAL (TO AYO, YA-Y1) AND Y/C SEPARATED CHROMA SIGNAL (TO ACO, CA-C1), L : Y-C SEPARATION MODE)
VI1 - VI8	DIGITAL DATA
XACO	ANALOG CHROMA SIGNAL REVERSE CURRENT (CONNECTED TO C-GND)
XYAO	ANALOG Y SIGNAL REVERSE CURRENT (CONNECTED TO Y-GND)
XCOE	DIGITAL CHROMA SIGNAL OUTPUT CONTROL (H : HIGH IMPEDANCE, L : STANDARD OUTPUT)
XCPON	CLAMP SETTING FOR A/D CONVERTER (H : A/D CONVERTER CAPABILITY, L : CLAMP CAPABILITY)
XYOE	DIGITAL Y SIGNAL OUTPUT CONTROL (H : HIGH IMPEDANCE, L : STANDARD OUTPUT)
YVRF	FULL SCALE VALUE SETTING OF ANALOG Y SIGNAL
OUTPUT	
ACO	ANALOG CHROMA SIGNAL
AYO	ANALOG Y SIGNAL
C1 - C9	DIGITAL CHROMA SIGNAL
CA	DIGITAL CHROMA SIGNAL
CIRF	EXTERNAL RESISTOR CONNECTION
CLK0	CLOCK AMPLIFIER
CVG	EXTERNAL CAPACITOR CONNECTION
RB	STANDARD VALUE (+0.5V) OF REFERENCE VOLTAGE (BOTTOM)
RT	STANDARD VALUE (+2.6V) OF REFERENCE VOLTAGE (TOP)
VB	EXTERNAL CAPACITOR
Y1 - Y9	DIGITAL Y SIGNAL
YA	DIGITAL Y SIGNAL
YIRF	EXTERNAL RESISTOR CONNECTION
YVG	EXTERNAL CAPACITOR CONNECTION

VDD (SUPPLY VOLTAGE = +5V)  
 AA-VDD : ANALOG SUPPLY VOLTAGE FOR A/D CONVERTER  
 AD-VDD : DIGITAL SUPPLY VOLTAGE FOR A/D CONVERTER  
 C-VDD : ANALOG SUPPLY VOLTAGE FOR D/A CONVERTER (CHROMA)  
 D-VDD : DIGITAL SUPPLY VOLTAGE  
 Y-VDD : ANALOG SUPPLY VOLTAGE FOR D/A CONVERTER (Y)

GND  
 AA-GND : ANALOG GND FOR A/D CONVERTER  
 AD-GND : DIGITAL GND FOR A/D CONVERTER  
 C-GND : ANALOG GND FOR D/A CONVERTER (CHROMA)  
 D-GND : DIGITAL GND  
 GR : GARD RING (CONNECTED TO AA-GND)  
 Y-GND : ANALOG GND FOR D/A CONVERTER (Y)

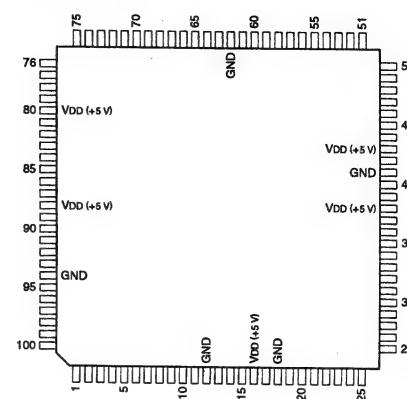


## CXD8665Q (SONY)

C-MOS DYNAMIC RAM CONTROL  
—TOP VIEW—

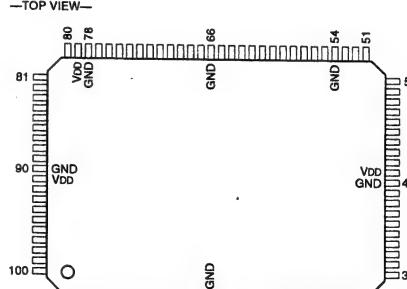
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	—	VDD5	49	O	DRAMADR2	97	I/O	GDRAMD1	145	—	VDD5	193	O	GO01
2	I	RIN5	50	O	DRAMADR3	98	I/O	GDRAMD2	146	O	PGD0	194	O	GO02
3	I	RIN7	51	O	DRAMADR4	99	I/O	GDRAMD3	147	O	PGD1	195	—	VDD5
4	—	GND	52	O	DRAMADR5	100	I/O	GDRAMD4	148	O	PGD2	196	O	GO03
5	I	RES	53	O	DRAMADR6	101	I/O	GDRAMD5	149	O	PGD3	197	O	GO04
6	I	TEST	54	O	DRAMADR7	102	I/O	GDRAMD6	150	O	PGD4	198	—	GND
7	I	VD	55	O	DRAMADR8	103	—	VDD3	151	O	PGD5	199	O	GO05
8	I	HD	56	O	DRAMADR9	104	I/O	GDRAMD7	152	O	PGD6	200	O	GO06
9	I	VBLNKV	57	—	VDD3	105	I/O	GDRAMD8	153	O	PGD7	201	I	GOD7
10	I	VBLNKR	58	—	VDD3	106	—	GND	154	—	GND	202	—	VDD5
11	—	VDD5	59	O	DRAMCAS	107	I/O	GDRAMD9	155	O	PBD0	203	O	R0D0
12	I	CLK	60	—	GND	108	I/O	GDRAMD10	156	O	PBD1	204	O	R0D1
13	—	GND	61	—	VDD3	109	I/O	GDRAMD11	157	O	PBD2	205	O	R0D2
14	I	HCLK	62	O	DRAMRAS01	110	I/O	GDRAMD12	158	O	PBD3	206	O	R0D3
15	—	GND	63	O	DRAMRAS23	111	I/O	GDRAMD13	159	O	PBD4	207	O	R0D4
16	I	RDn	64	—	GND	112	I/O	GDRAMD14	160	O	PBD5	208	O	R0D5
17	I	WRn	65	O	DRAMRAS45	113	I/O	GDRAMD15	161	O	PBD6	209	—	V005
18	—	V005	66	O	DRAMRAS67	114	—	GND	162	O	PBD7	210	O	R0D6
19	I	CS0n	67	O	DRAMRAS0	115	I/O	BDRAMD0	163	—	VDD5	211	O	R0D7
20	I	CS1n	68	O	DRAMRAS1	116	I/O	BDRAMD1	164	O	PDCLK1	212	—	GND
21	I	C52	69	O	DRAMRAS2	117	—	VDD3	165	O	PDCLK2	213	I	BIN0
22	I	CS3	70	O	DRAMRAS3	118	I/O	BDRAMD2	166	—	GND	214	I	BIN1
23	I	ADR0	71	O	DRAMRAS4	119	I/O	BDRAMD3	167	O	PDCLK3	215	I	BIN2
24	I	ADR1	72	O	DRAMRAS5	120	—	GND	168	O	PDCLK4	216	I	BIN3
25	I	ADR2	73	O	DRAMRAS6	121	—	VDD3	169	O	PRTACT	217	I	BIN4
26	I	ADR3	74	O	DRAMRAS7	122	I/O	BDRAMD4	170	O	PRTBUSY	218	I	BIN5
27	I	ADR4	75	—	VDD3	123	I/O	BDRAMD5	171	O	LFCTH <sub>h</sub> MON	219	I	BIN6
28	I	ADR5	76	I/O	RDRAMD0	124	—	GND	172	O	RABUSY	220	I	BIN7
29	—	GND	77	I/O	RDRAMD1	125	I/O	BDRAMD6	173	O	REFRESH	221	—	VDD5
30	I/O	D0	78	—	GND	126	I/O	BDRAMD7	174	O	REFERENCE	222	I	GIN0
31	I/O	D1	79	I/O	RDRAMD2	127	I/O	BDRAMD8	175	O	MONITMG	223	—	GND
32	I/O	D2	80	I/O	RDRAMD3	128	I/O	BDRAMD9	176	O	PRTTMG	224	I	GIN1
33	I/O	D3	81	I/O	RDRAMD4	129	I/O	BDRAMD10	177	—	VDD5	225	I	GIN2
34	I/O	D4	82	I/O	RDRAMD5	130	I/O	BDRAMD11	178	O	VBLNK	226	—	VDD5
35	I/O	D5	83	I/O	RDRAMD6	131	I/O	BDRAMD12	179	O	BLNK	227	I	GIN3
36	I/O	D6	84	I/O	RDRAMD7	132	I/O	BDRAMD13	180	—	GND	228	I	GIN4
37	I/O	D7	85	I/O	RDRAMD8	133	I/O	BDRAMD14	181	—	VDD5	229	I	GIN5
38	I	SRC_MEM0	86	I/O	RDRAMD9	134	I/O	BDRAMD15	182	O	B0D0	230	I	GIN6
39	I	FTCH <sub>h</sub> MON	87	I/O	RDRAMD10	135	—	VDD5	183	O	B0D1	231	I	GIN7
40	I	RATRG	88	I/O	RDRAMD11	136	O	PRD0	184	—	GND	232	—	GND
41	I	PDREQ	89	—	VDD3	137	O	PRD1	185	O	B0D2	233	I	RIN0
42	I	TRG4IN1	90	I/O	RDRAMD12	138	—	GND	186	O	B0D3	234	I	RIN1
43	—	VDD5	91	I/O	RDRAMD13	139	O	PRD2	187	O	B0D4	235	I	RIN2
44	O	DRAMADn	92	—	GND	140	O	PRD3	188	O	B0D5	236	I	RIN3
45	O	DRAMWEn	93	I/O	RDRAMD14	141	O	PRD4	189	O	B0D6	237	—	VDD5
46	—	GND	94	I/O	RDRAMD15	142	O	PRD5	190	O	B0D7	238	I	RIN4
47	O	DRAMAD0	95	—	VDD3	143	O	PRD6	191	—	GND	239	I	RIN5
48	O	DRAMAD1	96	I/O	RDRAMD16	144	O	PRD7	192	O	GD00	240	—	GND

## CXD8865R (SONY)

C-MOS GATE ARRAY  
—TOP VIEW—

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	D46	21	I	D24	41	—	GND	61	I	A7	81	O	XTALH
2	I	D45	22	I	D23	42	O	CLK2	62	—	GND	82	I	P
3	I	D44	23	I	D22	43	—	VDD	63	I	A6	83	O	TEST0
4	I	D43	24	I	D21	44	O	CLK4	64	I	A5	84	O	TEST1
5	I	D42	25	I	D20	45	I	LINN	65	I	A4	85	I	OSCO
6	I	D41	26	I	HEADACTN	46	I	ONNOFF	66	I	A3	86	I	OSC1
7	I	D40	27	I	PRINTPLS	47	I	S2	67	I	A2	87	I	XCLOCK
8	I	D36	28	I	D16	48	I	S1	68	I	A1	88	—	VDD
9	I	D35	29	I	D15	49	I	S0	69	I	A0	89	O	XOUTM
10	I	D34	30	I	D14	50	I	REN	70	I	RESETN	90	I	XINH
11	I	D33	31	I	D13	51	I	WEN	71	O	OUT7	91	I	RCLKSEL
12	—	GND	32	I	D12	52	I/O	D7	72	O	OUT6	92	O	XOUTH
13	I	D32	33	I	D11	53	I/O	D6	73	O	OUT5	93	I	XINH
14	I	D31	34	I	D10	54	I/O	D5	74	O	OUT4	94	—	GND
15	I	D30	35	I	LATCHN	55	I/O	D4	75	O	OUT3	95	O	TEST2
16	—	VDD	36	O	TEST7	56	O	D3	76	O	OUT2	96	O	TEST3
17	O	STBN	37	O	TEST8	57	I/O	D2	77	O	OUT1	97	O	TEST4
18	—	GND	38	—	VDD	58	I/O	D1	78	O	OUT0	98	O	TEST5
19	I	D26	39	O	TEST9	59	I/O	D0	79	O	XTALM	99	O	TEST6
20	I	D25	40	O	CLK	60	I	A8	80	—	VDD	100	O	RSTNOUT

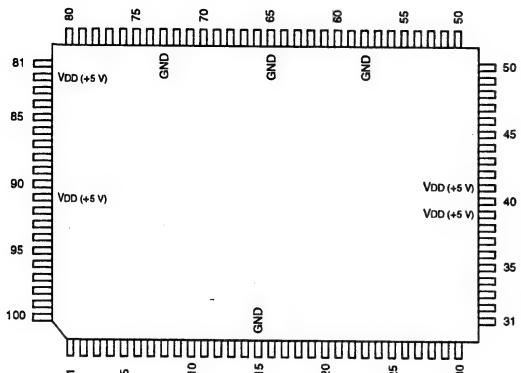
## CXD8868Q (SONY)

SEMI CUSTOM LSI  
—TOP VIEW—

PIN No.	SIGNAL								
1	CKPB	21	IOB5	41	VDD	61	IOA18	81	IOC11
2	CKPC	22	IOB6	42	IOA0	62	IOA19	82	IOC12
3	CKA	23	IOB7	43	IOA1	63	IOA20	83	IOC13
4	CKB	24	IOB8	44	IOA2	64	IOA21	84	IOC14
5	CKC	25	IOB9	45	IOA3	65	IOA22	85	IOC15
6	SEL0	26	IOB10	46	IOA4	66	GND	86	IOC16
7	SEL1	27	IOB11	47	IOA5	67	IOA23	87	IOC17
8	SEL2	28	IOB12	48	IOA6	68	IOC0	88	IOC18
9	DIR0	29	IOB13	49	IOA7	69	IOC1	89	IOC19
10	DIR1	30	IOB14	50	IOA8	70	IOC2	90	GND
11	ROT1	31	IOB15	51	IOA9	71	IOC3	91	VDD
12	ROT2	32	IOB16	52	IOA10	72	IOC4	92	IOC20
13	A0	33	IOB17	53	IOA11	73	IOC5	93	IOC21
14	A1	34	IOB18	54	GND	74	IOC6	94	IOC22
15	GND	35	IOB19	55	IOA12	75	IOC7	95	IOC23
16	IOB0	36	IOB20	56	IOA13	76	IOC8	96	INV
17	IOB1	37	IOB21	57	IOA14	77	IOC9	97	G
18	IOB2	38	IOB22	58	IOA15	78	GND	98	CS
19	IOB3	39	IOB23	59	IOA16	79	VDD	99	FIX
20	IOB4	40	GND	60	IOA17	80	IOC10	100	CKPA

CXD8869Q (SONY)

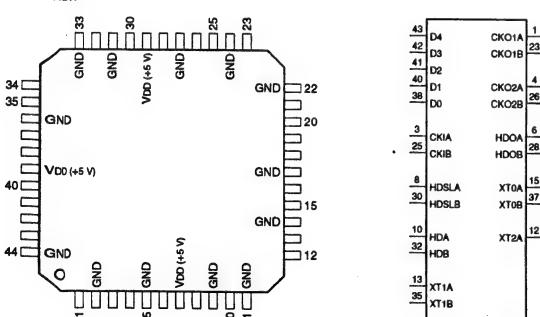
**C-MOS CELL BACE IC**  
**—TOP VIEW—**



PIN NO.	I/O	SIGNAL												
1	VO	B7	21	VO	R4	41	—	VDD	61	VO	OUTR6	81	I	REV
2	VO	B6	22	VO	R3	42	I	A3	62	VO	OUTR7	82	—	VDD
3	VO	B5	23	VO	R2	43	I	A4	63	VO	OUTG0	83	O	OUTPS5
4	VO	B4	24	VO	R1	44	I	A5	64	VO	OUTG1	84	O	OUTPS1
5	VO	B3	25	VO	R0	45	I	A6	65	—	GND	85	O	OUTPS2
6	VO	B2	26	I	RDN	46	I	A7	66	VO	OUTG2	86	O	OUTPS3
7	VO	B1	27	I	WRN	47	I	A8	67	VO	OUTG3	87	O	OUTPS4
8	VO	B0	28	VO	D7	48	I	A9	68	VO	OUTG4	88	O	OUTPS5
9	VO	G7	29	VO	D6	49	I	A10	69	VO	OUTG5	89	O	OUTPS6
10	VO	G6	30	VO	D5	50	I	CS1N	70	VO	OUTG6	90	O	OUTPS7
11	VO	G5	31	VO	D4	51	I	CS2N	71	VO	OUTG7	91	—	VDD
12	VO	G4	32	VO	D3	52	I	CS3	72	VO	OUTB0	92	I	CLK2
13	VO	G3	33	VO	D2	53	I	CS4	73	—	GND	93	I	TEST
14	VO	G2	34	VO	D1	54	VO	OUTR0	74	VO	OUTB1	94	O	Y6N
15	—	GND	35	VO	D0	55	VO	OUTR1	75	VO	OUTB2	95	O	Y7N
16	VO	G1	36	I	A0	56	VO	OUTR2	76	VO	OUTB3	96	I	BE0
17	VO	G0	37	I	A1	57	VO	OUTR3	77	VO	OUTB4	97	I	BE1
18	VO	R7	38	I	A2	58	—	GND	78	VO	OUTB5	98	I	BE2
19	VO	R6	39	—	VDD	59	VO	OUTR4	79	VO	OUTB6	99	I	CLK1
20	VO	R5	40	I	RESETN	60	VO	OUTR5	80	VO	CLTR7	100	I	DEF1N

CXD8932Q (SONY)

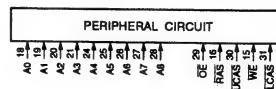
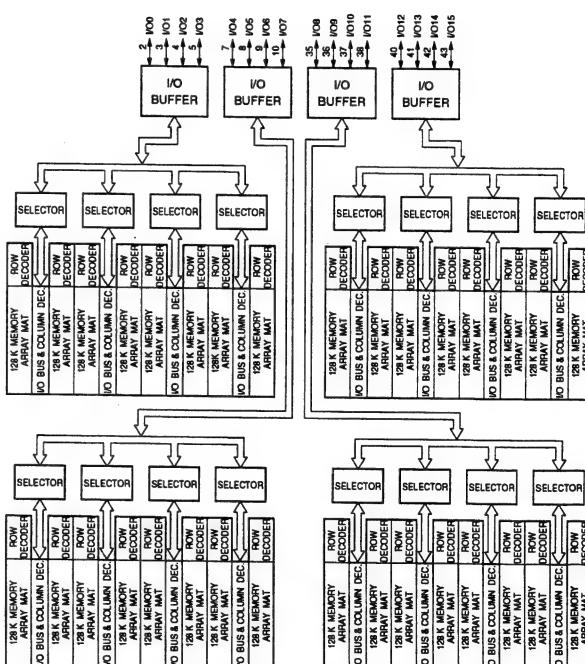
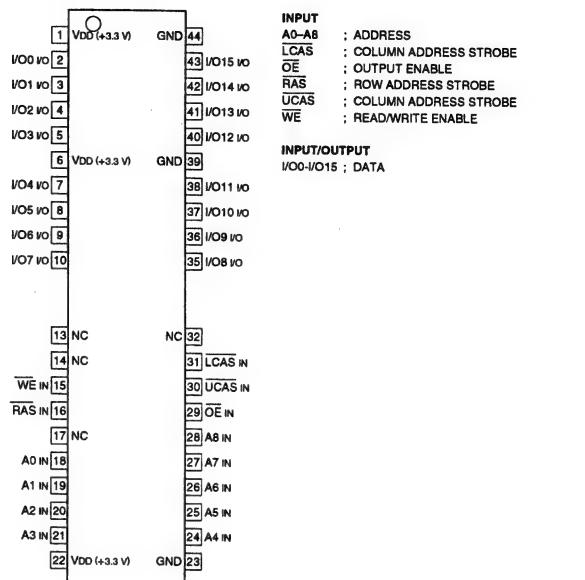
## C-MOS GATE ARRAY TOP VIEW



(VDD = +5 V)											
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	CK01A	12	O	XT2A	23	O	CK01B	34	—	NC
2	—	GND	13	I	XT1A	24	—	GND	35	I	XT1B
3	I	CK1A	14	—	GND	25	I	CK1B	36	—	GND
4	O	CK02A	15	O	XT0A	26	O	CK02B	37	O	XT0B
5	—	GND	16	—	NC	27	—	GND	38	I	D0
6	O	HDOA	17	—	GND	28	O	HDOB	39	—	VDD
7	—	VDD	18	—	NC	29	—	VDD	40	I	D1
8	I	HDSL A	19	—	NC	30	I	HDSL B	41	I	D2
9	—	GND	20	—	NC	31	—	GND	42	I	D3
10	I	HDA	21	—	NC	32	I	HDB	43	I	D4
11	—	GND	22	—	GND	33	—	GND	44	—	GND

HM51W4265CLTT-6 (HITACHI)

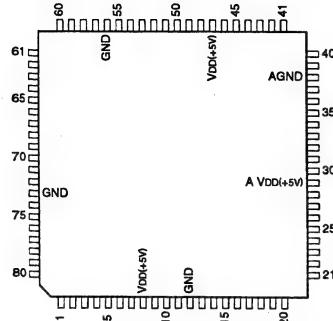
**C-MOS 4 M (262,144 W × 16)-BIT DYNAMIC RAM**  
—TOP VIEW—



## HD6413378F10 (HITACHI)

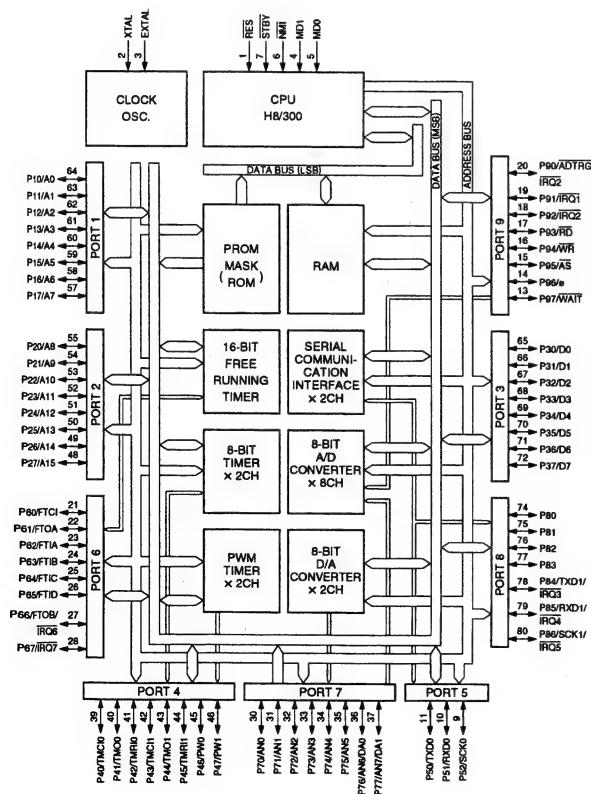
## C-MOS 8-BIT SIGNAL CHIP MICRO COMPUTER

—TOP VIEW—



(VDD = +5V)								
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	I	RES	21	I/O	P60/FTCI	41	I/O	P42/TMRC0
2	I	XTAL	22	I/O	P61/FTOA	42	I/O	P43/TMC01
3	I	EXTAL	23	I/O	P62/FTIA	43	I/O	P44/TMO01
4	I	MD1	24	I/O	P63/FTIB	44	I/O	P45/TMRC1
5	I	MDO	25	I/O	P64/FTIC	45	I/O	P46/PW0
6	I	NMI	26	I/O	P65/FTID	46	I/O	P47/PW1
7	I	STBY	27	I/O	P66/FTOB/IR06	47	—	VDD
8	—	Vdd	28	I/O	P67/IR07	48	I/O	P27/A15
9	I/O	P52/SCK0	29	—	AVDD	49	I/O	P28/A14
10	I/O	P51/RXD0	30	I/O	P70/AN0	50	I/O	P25/A13
11	I/O	P50/TXD0	31	I/O	P71/AN1	51	I/O	P24/A12
12	—	GND	32	I	P72/AN2	52	I/O	P23/A11
13	I/O	P97/WAIT	33	I	P73/AN3	53	I/O	P22/A10
14	I/O	P96/e	34	I	P74/AN4	54	I/O	P21/A9
15	I/O	P95/AS	35	I	P75/AN5	55	I/O	P20/A8
16	I/O	P94/WR	36	I	P76/AN6/DAO	56	—	GND
17	I/O	P93/RD	37	I	P77/AN7/DA1	57	I/O	P17/A7
18	I/O	P92/RC02	38	—	AGND	58	I/O	P16/A6
19	I/O	P91/RC01	39	I/O	P40/TMC10	59	I/O	P15/A5
20	I/O	P90/ADTRG/RC02	40	I/O	P41/TMO0	60	I/O	P14/A4

INPUT		OUTPUT		INPUT/OUTPUT	
P10/A0	P60/FTCI	21	P90/ADTRG/IR02	DO - D7	DATA BUS
P11/A1	P61/FTOA	22	P91/IR01	P10 - P17	PORT 1
P12/A2	P62/FTIA	23	P92/IR02	P20VP27	PORT 2
P13/A3	P63/FTIB	24	P93/RD	P30 - P37	PORT 3
P14/A4	P64/FTIC	25	P94/WR	P40 - P47	PORT 4
P15/A5	P65/FTID	26	P95/AS	P50 - P52	PORT 5
P16/A6	P66/FTOB/IR06	27	P96/e	P60 - P67	PORT 6
P17/A7	P67/IR07	28	P97/WAIT	P80 - P86	PORT 8
				P98/TXD0	PORT 9
				P99/SCK0	SERIAL CLOCK
				RES	
				NMI	
				STBY	
				MD1	
				MDO	
				XTAL	
				EXTAL	



## DS1000Z-50 (DALLAS SEMICONDUCTOR)

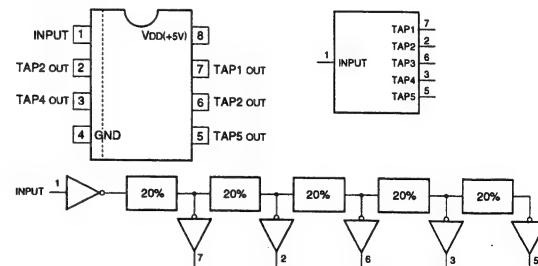
## DS1000Z-50(TE2)

## DS1000Z-75

## DS1000Z-75(TE2) (DALLAS SEMICONDUCTOR)

## C-MOS DELAY LINE

—TOP VIEW—

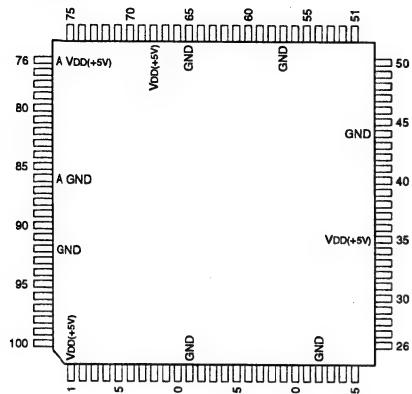


TYPE. NO.	DELAY TIME (ns)				
	TAP1	TAP2	TAP3	TAP4	TAP5
DS1000M-50	10	20	30	40	50
DS1000M-60	12	24	36	48	60
DS1000M-75	15	30	45	60	75
DS1000M-100	20	40	60	80	100
DS1000M-125	25	50	75	100	125
DS1000M-150	30	60	90	120	150
DS1000M-175	35	70	105	140	175
DS1000M-200	40	80	120	160	200
DS1000M-250	50	100	150	200	250
DS1000M-500	100	200	300	400	500
DS1000Z-25	5	10	15	20	25
DS1000Z-100	20	40	60	80	100

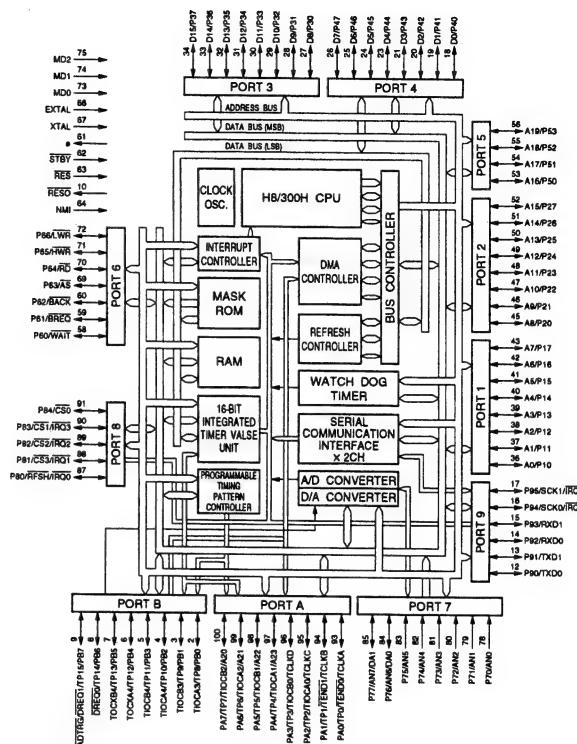
HD643304S-A00F (HITACHI)

## C-MOS 16-BIT MICRO PROCESSOR

**—TOP VIEW—**



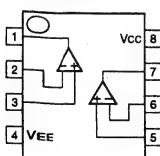
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	/O	VDD	26	/O	P47/D7	51	/O	P26/A14	76	/O	VDD
2	/O	PB0/10CQA3/P8	27	/O	P30/D8	52	/O	P27/A15	77	/I	VREF
3	/O	PB1/10CQB3/P9	28	/O	P31/D9	56	/O	P50/A16	78	/I	P70/AN0
4	/O	PB2/10CQA7/P10	29	/O	P32/D10	54	/O	P51/A17	79	/I	P71/AN1
5	/O	PB3/10CQB7/P11	30	/O	P33/D11	55	/O	P52/A18	80	/I	P72/AN2
6	/O	PB4/10CQA11/P12	31	/O	P34/D12	56	/O	P53/A19	81	/I	P73/AN3
7	/O	PB5/10CQB11/P13	32	/O	P35/D13	57	/—	GND	82	/I	P74/AN4
8	/O	PB6/10CQ0/P14	33	/O	P36/D14	58	/O	P60/WAIT	83	/I	P75/AN5
9	/O	PB7/10CRA6/P15	34	/O	P37/D15	59	/O	P61/BREQ	84	/O	P76/AN6/DAO
10	O	RES0	35	/O	VDD	60	/O	P62/BACK	85	/O	P77/AN7/DAO
11	/—	GND	36	/O	P10/A0	61	O	—	86	/—	A GND
12	/O	P90/TX0	37	/O	P11/A1	62	I	STBY	87	/O	P80/FRSH/T1/Q0
13	/O	P91/TX1	38	/O	P12/A2	63	I	RES	88	/O	P81/CS3/NSA#R01
14	/O	P92/RX0	39	/O	P13/A3	64	I	NMI	89	/O	P82/CS2/RC2
15	/O	P93/RX1	40	/O	P14/A4	65	/—	GND	90	/O	P83/CS1/RC1
16	/O	P94/4RQ4/SC0	41	/O	P15/A5	66	I	EXTAL	91	/O	P84/CS0
17	/O	P95/4RQ5/SC1	42	/O	P16/A6	67	I	XTAL	92	/—	GND
18	/O	P40/D0	43	/O	P17/A7	68	/—	VDD	93	/O	P80/TP7/TEND0/TCLKA
19	/O	P41/D1	44	/—	GND	69	/O	P63/AS	94	/O	P81/TP1/TEND0/TCLKB
20	/O	P42/D2	45	/O	P20/A8	70	/O	P64/RD	95	/O	P82/TP2/TEND0/TCLKC
21	/O	P43/D3	46	/O	P21/A9	71	/O	P65/HWR	96	/O	P83/TP3/TEND0/TCLKD
22	/—	GND	47	/O	P22/A10	72	/O	P66/LWR	97	/O	P84/TP4/TEND0/TCLKA22
23	/O	P44/D4	48	/O	P23/A11	73	I	MDO	98	/O	P85/TP5/TEND0/TCLKB22
24	/O	P45/D5	49	/O	P24/A12	74	I	MD1	99	/O	P86/TP6/TEND0/TCLKC22
25	/O	P46/D6	50	/O	P25/A13	75	I	MD2	100	/O	P87/TP7/TEND0/TCLKD22



**LM358PS (TI)FLAT PACKAGE**  
**LM358PS-E05**

## DUAL OPERATIONAL AMPLIFIERS (SINGLE-SUPPLY TYPE)

**(SINGLE-SIDE)**

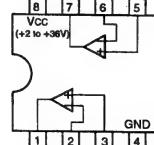


TYPE	VCC - VEE
828 TYPE	+5 to +36V
2244 TYPE	+2.5 to +36V
2904 TYPE	+3 to +24V
3404 TYPE	+4 to +32V
3414 TYPE	+3 to +10V
4572 TYPE	+4 to +14V
5216 TYPE	+4 to +32V
7022 TYPE	+3 to +16V
75W01 TYPE	+3 to +10V
33172 TYPE	+3 to +44V
OTHERS	+3 to +36V

## LM393PS (TI)FLAT PACKAGE LM393PS-E05

## DUAL VOLTAGE COMPARATORS —TOP VIEW—

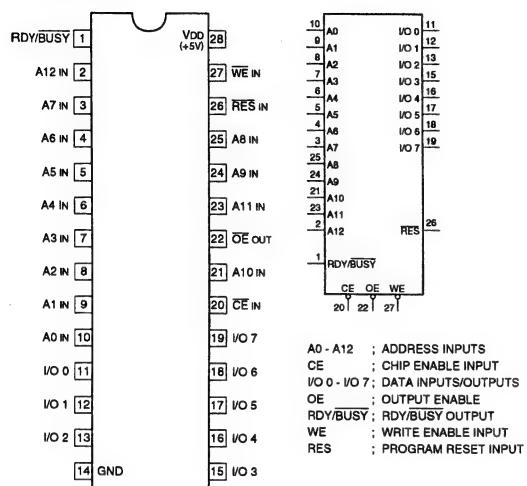
**—TOP VIEW—**



**HN58C66FP-25 (HITACHI)**  
**HN58C66SFP25TZ**

C-MOS 64K (8192 x 8)-BIT EEPROM

—TOP VIEW—



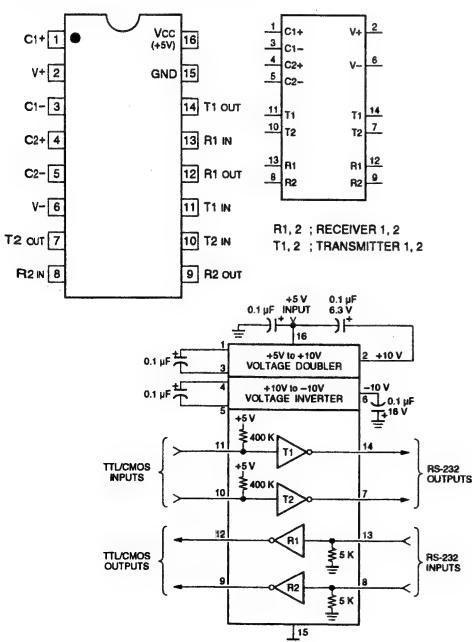
CE	OE	WE	RDY/BUSY	RES	I/O TERMINAL	FUNCTION
0	0	1	Hi-Z	1	DOUT	READ
1	X	X	Hi-Z	X	Hi-Z	STANDBY
0	1	0	Hi-Z-LOW	1	DIN	WRITE
0	1	1	Hi-Z	1	Hi-ZL	DESELECT
X	X	1	Hi-Z	X	—	WRITE INH
X	0	X	Hi-Z	X	—	WRITE INH
0	0	1	LOW	1	DATA OUT (1/07)	DATA POLLING
X	X	X	Hi-Z	0	Hi-Z	PROGRAM RESET

0 : LOW LEVEL  
 1 : HIGH LEVEL  
 X : DON'T CARE  
 Hi-Z : HIGH IMPEDANCE

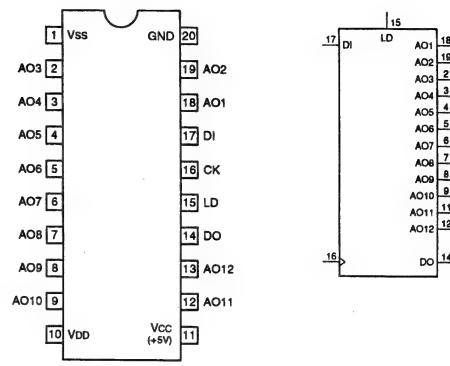
**MAX202CSE (MAXIM)**  
**MAX202CSE-TE2**

RS-232 TRANSMITTER/RECEIVER

—TOP VIEW—

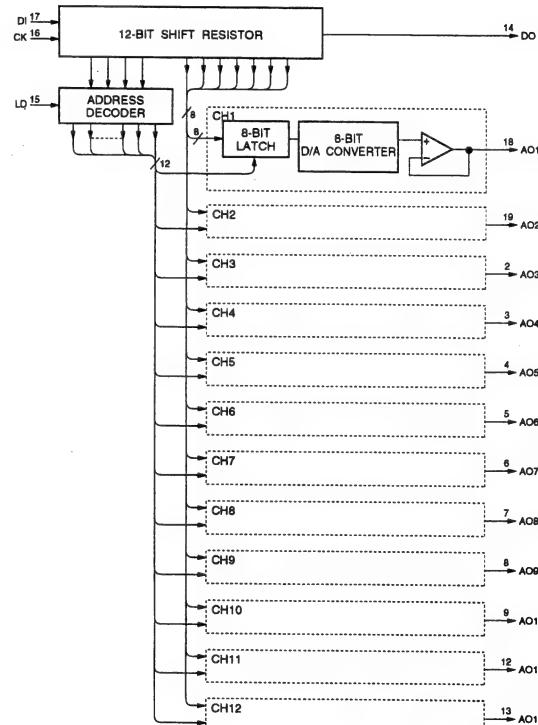

**M62352GP (MITSUBISHI)FLAT PACKAGE**  
**M62352GP-75EC**
C-MOS 8-BIT x 12 CHANNEL D/A CONVERTER  
(WITH BUFFER OPERATIONAL AMPLIFIER)

—TOP VIEW—



## NOTE:

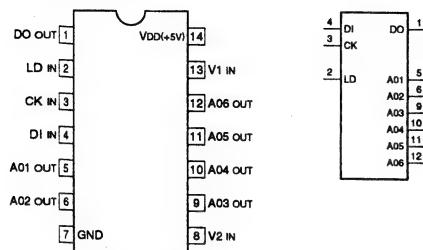
3.5 V < Vdd < Vcc  
 -3.5 V < Vss < Vcc



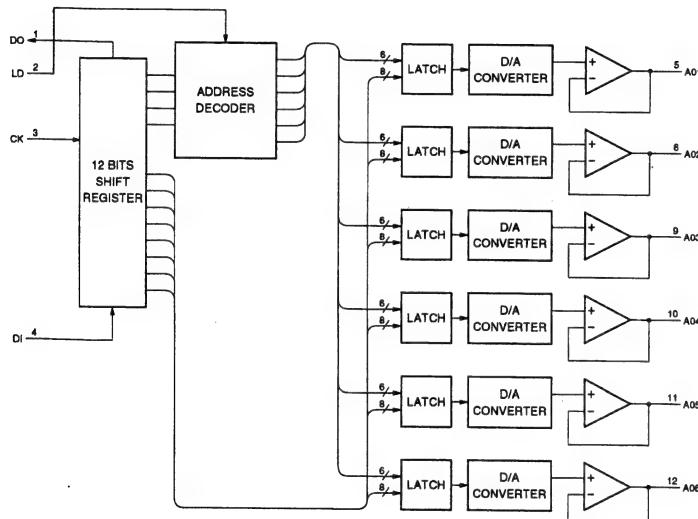
## M62354FP-T1 (MITSUBISHI)

## C-MOS 8 BITS 6 CHANNEL D/A CONVERTER

—TOP VIEW—



A01 - A06 : 8 BITS D/A OUTPUTS  
 CK : CLOCK INPUT  
 DI : 12 BITS SERIAL DATA INPUT  
 DO : BIT DATA OF MSB OF 12 BITS SHIFT REGISTER OUTPUT  
 LD : LOAD INPUT  
 V1 : REFERENCE VOLTAGE (UPPER) +3.5 to +5 (VDD) V  
 V2 : REFERENCE VOLTAGE (LOWER) 0 to +1.5 (VDD-3.5) V



D0	D1	D2	D3	D4	D5	D6	D7	D/A OUTPUT
0	0	0	0	0	0	0	0	$(V1-V2) / 256 \times 1 + V2$
1	0	0	0	0	0	0	0	$(V1-V2) / 256 \times 2 + V2$
0	1	0	0	0	0	0	0	$(V1-V2) / 256 \times 3 + V2$
1	1	0	0	0	0	0	0	$(V1-V2) / 256 \times 4 + V2$
:	:	:	:	:	:	:	:	
0	1	1	1	1	1	1	1	$(V1-V2) / 256 \times 255 + V2$
1	1	1	1	1	1	1	1	V1

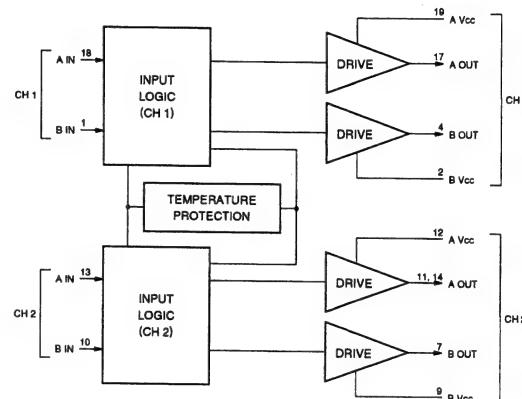
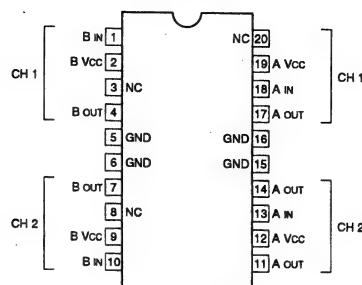
D8	D9	D10	D11	ADDRESS SELECT
0	0	0	0	X
0	0	0	1	A01
0	0	1	0	A02
0	0	1	1	A03
0	1	0	0	A04
0	1	0	1	A05
0	1	1	0	A06
0	1	1	1	X
1	X	X	X	X

0 : LOW LEVEL  
 1 : HIGH LEVEL  
 X : DON'T CARE

MB3863PF-G-BND (FUJITSU)  
MB3863PF-G-BND-ER

## DUAL MODE MOTOR DRIVER

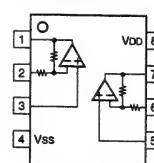
—TOP VIEW—



## MC14576CFEL (MOTOROLA)FLAT PACKAGE

## C-MOS DUAL VIDEO AMPLIFIERS

—TOP VIEW—

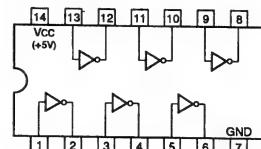


\*VDD + |VSS| = +5 to +12V

## MC74F04MEL (MOTOROLA)FLAT PACKAGE

## TTL INVERTER

—TOP VIEW—



A → Y = A → Y

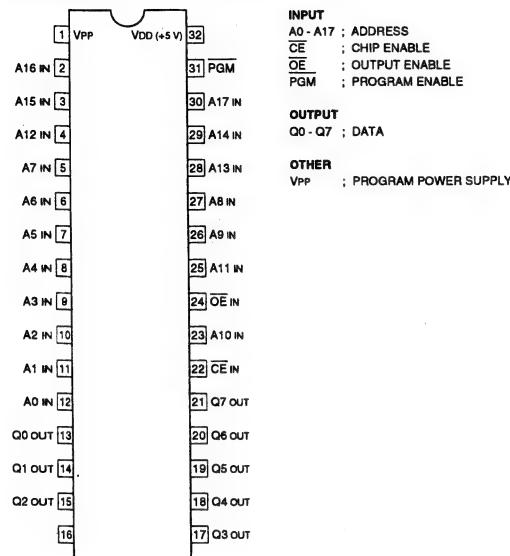
Y = Ā

A	Y
0	1
1	0

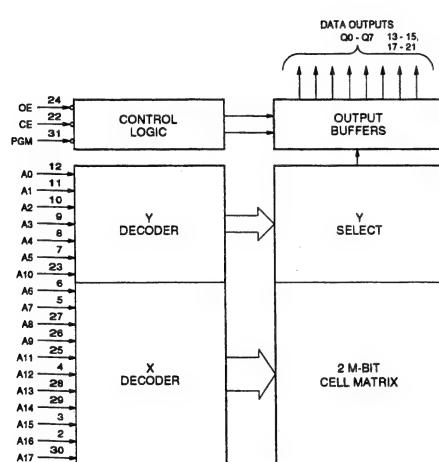
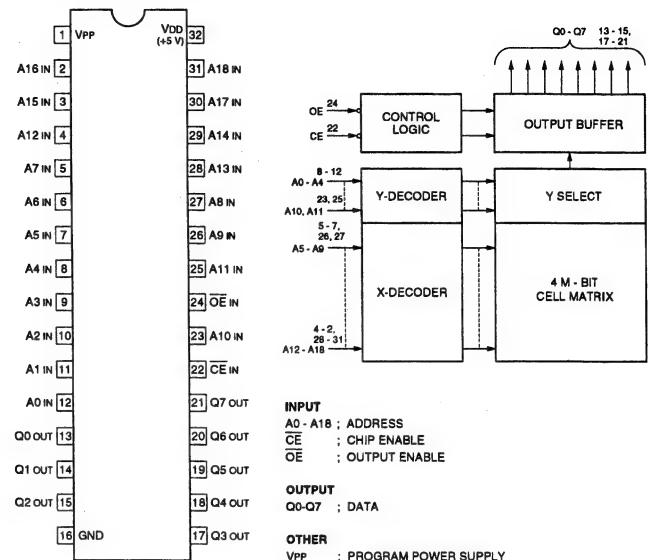
0 : LOW LEVEL  
1 : HIGH LEVEL



## MX27C2000DC-12 (MACRONIX)

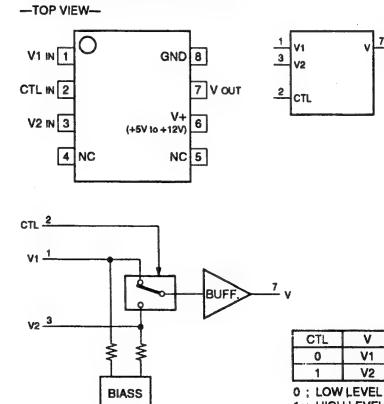
C-MOS 2 M (256 K x 8)-BIT ERASABLE PROM  
—TOP VIEW—

## MX27C4000MC-12-TEL (MACRONIX)

C-MOS 4 M (512 K x 8)-BIT ERASABLE PROM  
—TOP VIEW—

TERMINAL	CE	OE	PGM	A0	A9	VPP	OUTPUT
READ	0	0	x	x	x	+5 V	D OUT
OUTPUT DISABLE	0	1	x	x	x	+5 V	HI-Z
STANDBY (TTL)	1	x	x	x	x	+5 V	HI-Z
STANDBY (CMOS)	VDD±0.3 V	x	x	x	x	+5 V	HI-Z
PROGRAM	0	1	0	x	x	+12.5 V	D IN
PROGRAM VERIFY	0	0	1	x	x	+12.5 V	D OUT
PROGRAM INHIBIT	1	x	x	x	x	+12.5 V	HI-Z

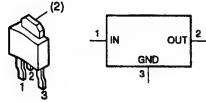
0 : LOW LEVEL  
1 : HIGH LEVEL  
x : DON'T CARE  
HI-Z : HIGH IMPEDANCE

NJM2233BM (JRC)FLAT PACKAGE  
NJM2233BM(TE2)2-INPUT VIDEO SIGNAL SWITCH  
—TOP VIEW—

## PQ05SZ1U (SHARP)+5 V 1 A

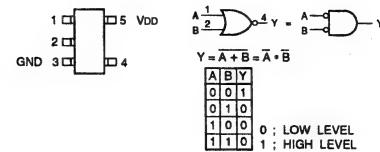
## POSITIVE VOLTAGE REGULATOR

—TOP VIEW—

SC7S02F (MOTOROLA) CHIP PACKAGE  
TC7S02F(TE85R)

## C-MOS 2-INPUT NOR GATE

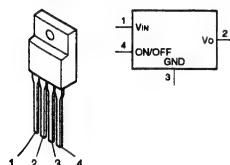
—TOP VIEW—



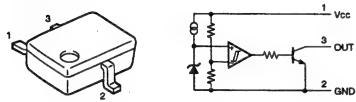
## PQ3RF33 (SHARP)+3.5 V

## POSITIVE VOLTAGE REGULATOR (1A)

—TOP VIEW—



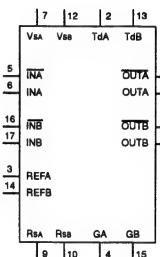
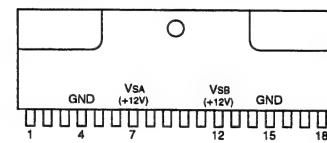
TYPE	VDD
4S01F	+3 to +18V
7S02F	+3 to +18V
7S02FU	+2 to +6V
7SH02FU	+2 to +6V

PST572CMT (MITSUMI) Vs=4.5 V  
PST572CMT-T1

## SLA7024M (SANKEN)

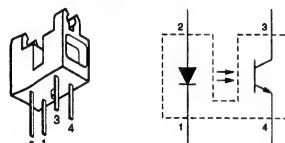
## STEPPING MOTOR UNIPOLAR DRIVING

—SIDE VIEW—



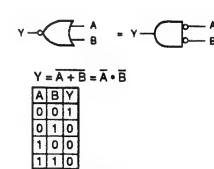
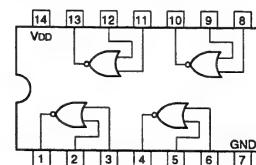
## RPI-5100 (ROHM)

## PHOTO INTERRUPTER

SN74HC02ANS (T) FLAT PACKAGE  
SN74HC02ANS-E05

## C-MOS QUAD 2-INPUT NOR GATES

—TOP VIEW—



NOTE:

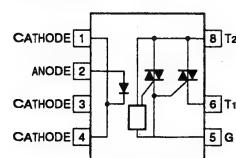
TYPE	VDD
74HC	+2 to +6V
74AC74VHC	+2 to +5.5V
74HC1774ACT	+4.5 to +5.5V
74LCX	+2 to +3.6V

0 : LOW LEVEL  
1 : HIGH LEVEL

## S16MD01 (SHARP)

## SOLID STATE RELAY

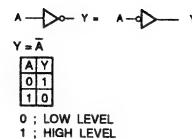
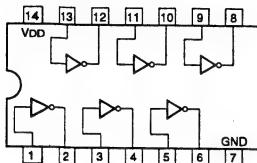
—TOP VIEW—



**SN74HC04ANS (TI)FLAT PACKAGE**  
**SN74HCU04ANS-E05 (TI)FLAT PACKAGE**  
**SN74HCU04ANS-E20 (TI)FLAT PACKAGE**

## C-MOS HEX INVERTERS

—TOP VIEW—



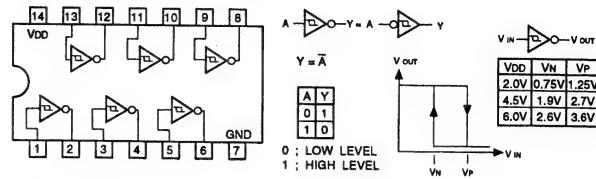
NOTE:

TYPE	VDD
74AC/74VHC/74VHCT	+2 to +5.5V
74ACT/74HCT	+4.5 to +5.5V
74LCX	+2 to +3.6V
OTHER TYPES	+2 to +6V

**SN74HC14ANS (TI)FLAT PACKAGE**  
**SN74HC14ANS-E05**

## C-MOS HEX SCHMITT TRIGGER INVERTERS

—TOP VIEW—



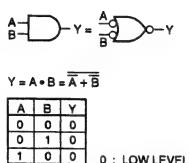
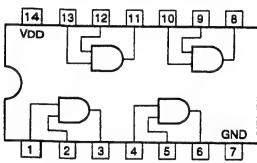
NOTE:

TYPE	VDD
74LCX	+2 to +3.6V
TC74AC/74HC	+2 to +5.5V
OTHER TYPES	+2 to +6V

**SN74HC08ANS (TI)FLAT PACKAGE**  
**SN74HC08ANS-E05**

## C-MOS QUAD 2-INPUT AND GATE

—TOP VIEW—



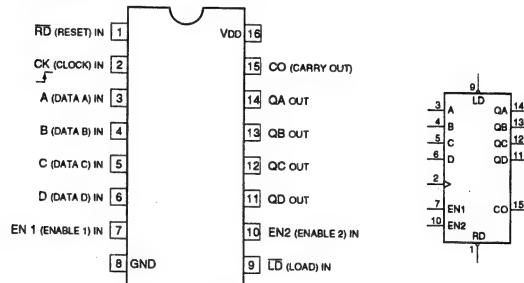
NOTE:

TYPE	VDD
74AC	+2 to +5.5V
40H	+2 to +8V
74ACT/74HCT/74VHCT	+4.5 to +5.5V
74LCX	+2 to +3.6V
OTHER TYPES	+2 to +6V

**SN74HC161ANS (TI)FLAT PACKAGE**  
**SN74HC161ANS-E05**

## C-MOS SYNCHRONOUS PRESETTABLE 4-BIT BINARY COUNTER

—TOP VIEW—



## MODE SELECTION

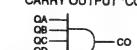
CONTROL INPUTS				MODE
Rd	Ld	EN1	EN2	
0	X	X	X	RESET (ASYNCHRONOUS)
1	0	X	X	PRESET (SYNCHRONOUS)
1	1	0	X	NO COUNT
1	1	X	0	NO COUNT
1	1	1	1	COUNT

0 ; LOW LEVEL  
1 ; HIGH LEVEL  
X ; DONT CARE

## COUNT SEQUENCE

COUNT	OUTPUTS		
	QD	QC	QB
0	0	0	0
1	0	0	1
2	0	1	0
3	0	1	1
4	0	1	0
5	0	1	0
6	0	1	1
7	0	1	1
8	1	0	0
9	1	0	1
10	1	0	0
11	1	0	1
12	1	1	0
13	1	1	0
14	1	1	1
15	1	1	1

## CARRY OUTPUT "CO"



CO IS HIGH WHEN EN2 INPUT IS HIGH AND COUNT IS '15'.

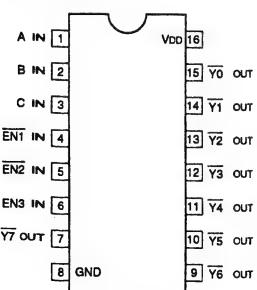
## NOTE :

TYPE	VDD
74ACT	+5V
TC40H	+2 to +8V
OTHERS	+2 to +6V

**SN74HC138ANS (TI)FLAT PACKAGE**  
**SN74HC138ANS-E05**

## C-MOS 3-TO-8 LINE DECODER / DEMULTIPLEXER

—TOP VIEW—



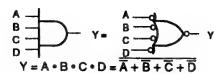
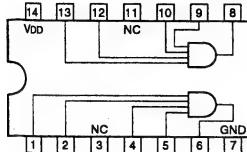
INPUTS			OUTPUTS							
EN	C	B	Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0
0	X	X	1	1	1	1	1	1	1	1
1	0	0	1	1	1	1	1	1	1	0
1	0	0	1	1	1	1	1	1	0	1
1	0	1	0	1	1	1	1	1	0	1
1	0	1	1	1	1	1	1	0	1	1
1	1	0	0	1	1	1	0	1	1	1
1	1	0	1	1	1	0	1	1	1	1
1	1	1	0	1	1	1	1	1	1	1
1	1	1	1	0	1	1	1	1	1	1

EN = EN1 + EN2 + EN3      0 ; LOW LEVEL  
1 ; HIGH LEVEL  
X ; DONT CARE

TYPE	VDD
74HCT138 TYPE	+5V
74ACT138 TYPE	+4.5 to +5.5V
TC74AC138 TYPE	+2 to +5.5V
TC74VHC138	+2 to +5.5V
OTHER TYPES	+2 to +6V

**SN74HC21ANS (T)FLAT PACKAGE**  
**SN74HC21ANS-E05**
**C-MOS DUAL 4-INPUT POSITIVE AND GATE**

—TOP VIEW—



A	B	C	D	Y
0	0	0	0	0
0	0	0	1	0
0	0	1	0	0
0	0	1	1	0
0	1	0	0	0
1	1	1	1	1
1	1	0	1	0
1	1	1	0	0
1	1	1	1	1

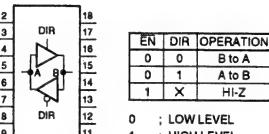
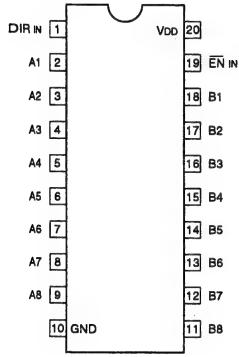
0 : LOW LEVEL  
 1 : HIGH LEVEL

NOTE:

TYPE	VDD
HC	+2V to +6V
VHC	+2V to +5.5V

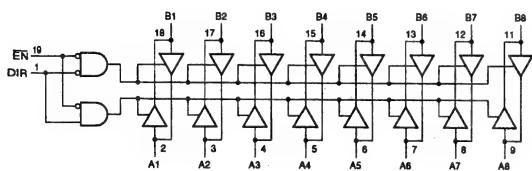
**SN74HC245ANS (T)FLAT PACKAGE**  
**SN74HC245ANS-E05**
**C-MOS BILATERAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS**

—TOP VIEW—

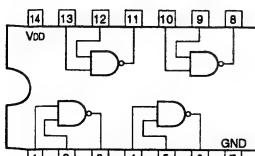


TYPE	VDD
74HC	+2 to +6V
74ACT	+5V
74AC	+2 to +5.5V
74VHC	+2 to +5.5V
74LCX	+2 to +3.6V
74LVT	+2.7 to +3.6V

0 : LOW LEVEL  
 1 : HIGH LEVEL  
 X : DON'T CARE  
 HI-Z : HIGH IMPEDANCE


**SN74HC00ANS (T)**  
**SN74HC00ANS-E05**
**C-MOS QUAD 2-INPUT NAND GATES**

—TOP VIEW—



A	B	Y	A	B	Y
0	0	1	0	0	1
0	1	0	0	1	0
1	0	0	1	0	0
1	1	0	1	1	1

0 : LOW LEVEL  
 1 : HIGH LEVEL

NOTE:

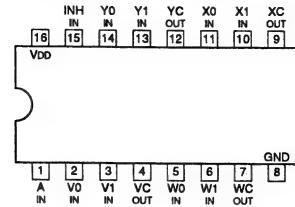
TYPE	VDD
74AC/74VHC	+2 to +5.5V
74ACT/74HCT/74VHCT	+4.5 to +5.5V
LCX	+2 to +3.6V
OTHER TYPES	+2 to +6V

UP-D2550(J)

UP-D2500(UC,CE)

**SN74HC257ANS-E05 (T)FLAT PACKAGE**
**C-MOS 2-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER**

—TOP VIEW—



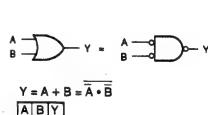
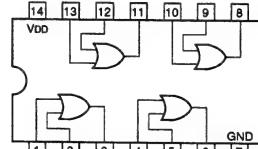
CONT. IN	ON	CHANNEL
0	0	0
0	1	1
1	X	OPEN

NOTE:

TYPE	VDD
74AC/74HC	+2 to +6V
74ACT	+5V
TC74AC257F	+2 to +5.5V

**SN74HC32ANS (T)FLAT PACKAGE**  
**SN74HC32ANS-E05**
**C-MOS QUAD 2-INPUT OR GATES**

—TOP VIEW—

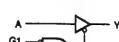
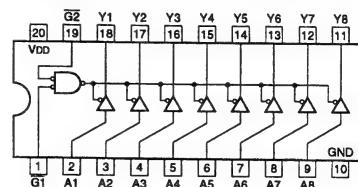


TYPE	VDD
74AC/74VHC	+2 to +5.5V
74HC	+2 to +6V
74HCT	+4.5 to +5.5V

0 : LOW LEVEL  
 1 : HIGH LEVEL

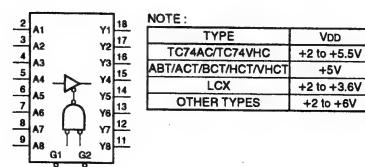
**SN74HC541ANS (T)FLAT PACKAGE**  
**SN74HC541ANS-E05**
**C-MOS BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS**

—TOP VIEW—

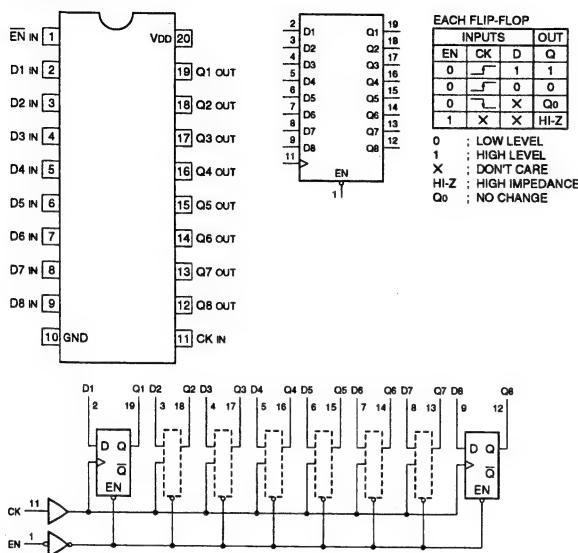


G1	G2	A	Y
0	0	0	0
0	1	1	1
1	X	X	HI-Z
X	1	X	HI-Z

0 : LOW LEVEL  
 1 : HIGH LEVEL  
 X : DON'T CARE  
 HI-Z : HIGH IMPEDANCE

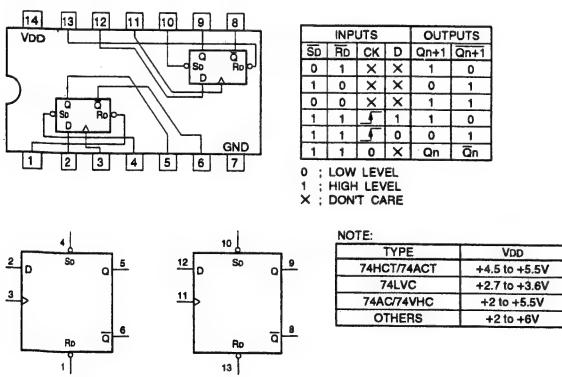
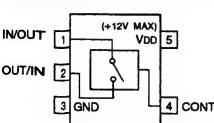
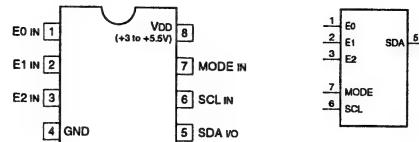


TYPE	VDD
TC74AC/TC74VHC	+2 to +5.5V
ABT/ACT/BCT/HCT/HCT	+5V
LCX	+2 to +3.6V
OTHER TYPES	+2 to +6V

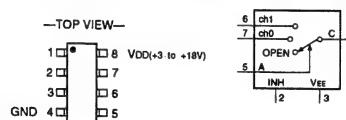
**SN74HC574ANS (TI)FLAT PACKAGE**  
**SN74HC574ANS-E05**
**C-MOS 3-STATE D-TYPE EDGE-TRIGGERED FLIP-FLOP**  
**-TOP VIEW-**


NOTE:

TYPE	V <sub>DD</sub>
74HC	+2 to +5V
74AC74VHC	+2 to +5.5V
74ACT74FCT	+4.5 to +5.5V
74HC174VHCT	+2 to +3.6V
74LVC	+2.7 to +3.6V

**SN74HC74ANS (TI)FLAT PACKAGE**  
**SN74HC74ANS-E05**
**C-MOS DUAL D-TYPE FLIP-FLOPS WITH DIRECT SET/RESET**  
**-TOP VIEW-**

**TC7S66F (TOSHIBA)**  
**TC7S66F(TE85R)**
**C-MOS ANALOG SWITCH**  
**-TOP VIEW-**

**ST24C01FM6TR (SGS)**
**C-MOS SERIAL ACCESS 1K (128 x 8)-BIT EEPROM**  
**-TOP VIEW-**


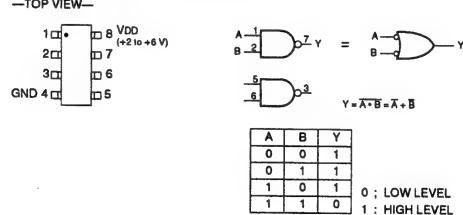
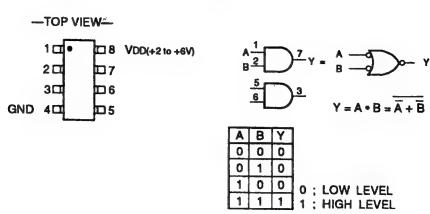
E0 - E2 : CHIP ENABLE INPUTS  
 MODE : WRITE MODE INPUT  
 SCL : SERIAL CLOCK INPUT  
 SDA : SERIAL DATA ADDRESS INPUT/OUTPUT

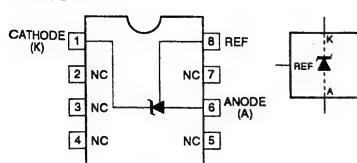
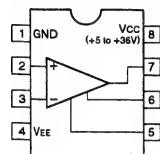
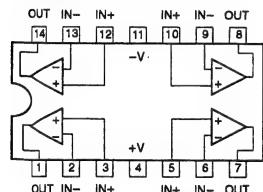
**TC4W53F (TOSHIBA)CHIP PACKAGE(5.0 X 3.1)  
 TC4W53F(TE12R)**
**C-MOS 2-CHANNEL MULTIPLEXER / DEMULTIPLEXER**


CONT INPUT

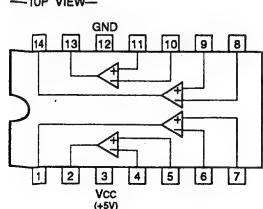
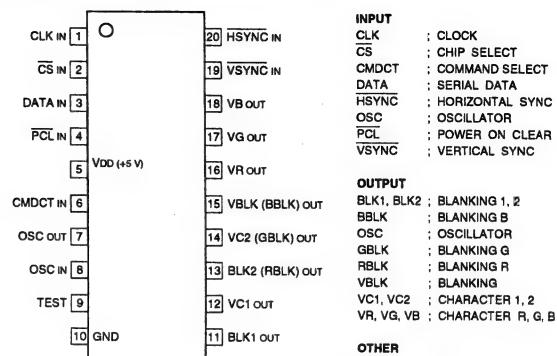
INH	A	ON CHANNEL
0	0	ch0
0	1	ch1
1	X	OPEN

0 : LOW LEVEL  
 1 : HIGH LEVEL  
 X : DON'T CARE

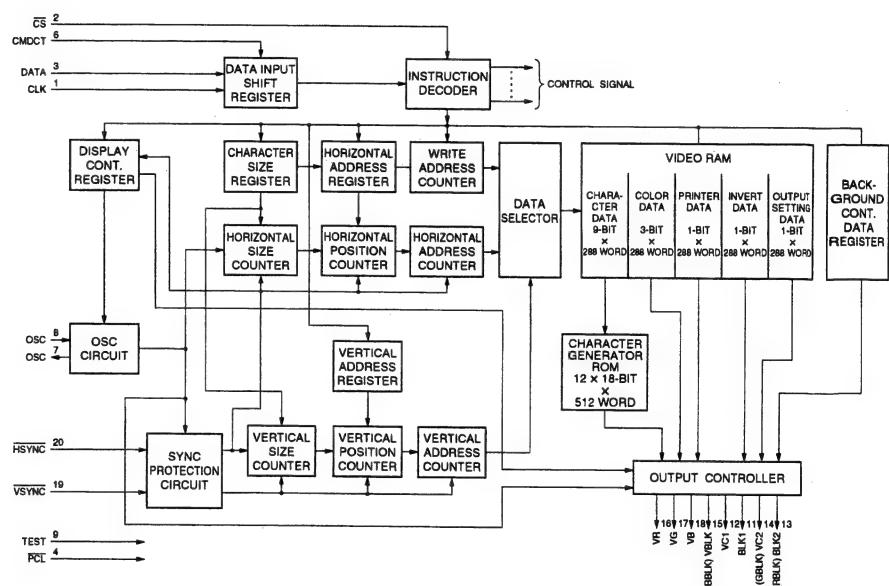
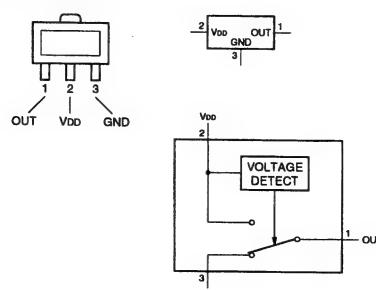
**TC7W00F(TE12R) (TOSHIBA)CHIP PACKAGE**
**C-MOS DUAL 2-INPUT NAND GATE**  
**-TOP VIEW-**

**TC7W08F (TOSHIBA)CHIP PACKAGE**  
**TC7W08F(TE12R)**
**C-MOS 2-INPUT AND GATE**


**TL431CPS (TI)FLAT PACKAGE**  
**TL431CPS-E20**
**ADJUSTABLE PRECISION SHUNT REGULATOR**  
**—TOP VIEW—**

**UPC311G2 (NEC)FLAT PACKAGE**  
**UPC311G2-E2**
**VOLTAGE COMPARATOR**  
**—TOP VIEW—**

**UPC324G2 (NEC)FLAT PACKAGE**  
**UPC324G2-E2**
**QUAD OPERATIONAL AMPLIFIERS**  
**—TOP VIEW—**


	+V	-V
SINGLE SUPPLY	+3 to +32V	GND
DUAL SUPPLIES	+1.5 to +16V	-1.5 to -16V

**UPC339G2-E2 (NEC)FLAT PACKAGE**
**QUAD COMPARATORS**  
**—TOP VIEW—**

**UPD6466GS-502-E2 (NEC)**
**C-MOS ON-SCREEN CHARACTER DISPLAY**  
**—TOP VIEW—**


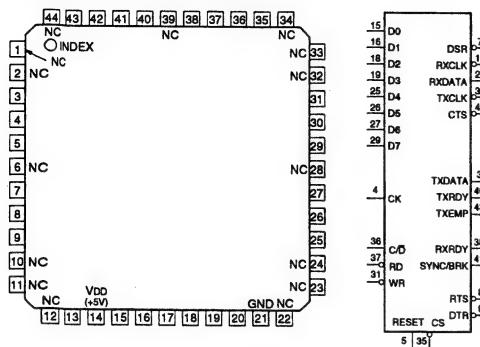
\* IN ( ) ARE SET BY SETTING WITH INITIAL CONDITION SETTING COMMAND.


**S-8054ALB-LM-S (SEIKO I AND E)4.00 – 4.30 V**  
**S-8054ALB-LM-T1**
**C-MOS VOLTAGE DETECTOR**  
**—TOP VIEW—**


UPD71051GU-10 (NEC)FLAT PACKAGE  
UPD71051GU-10-E2

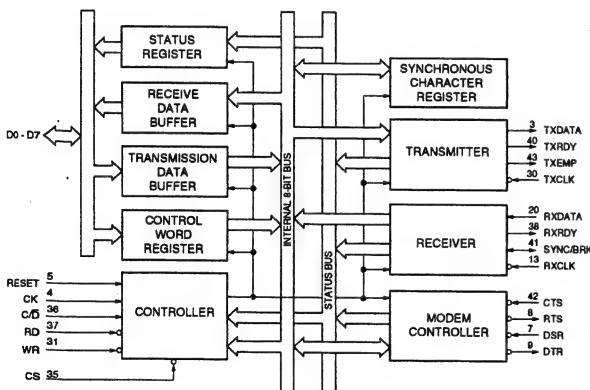
## C-MOS SERIAL CONTROLLER

—TOP VIEW—

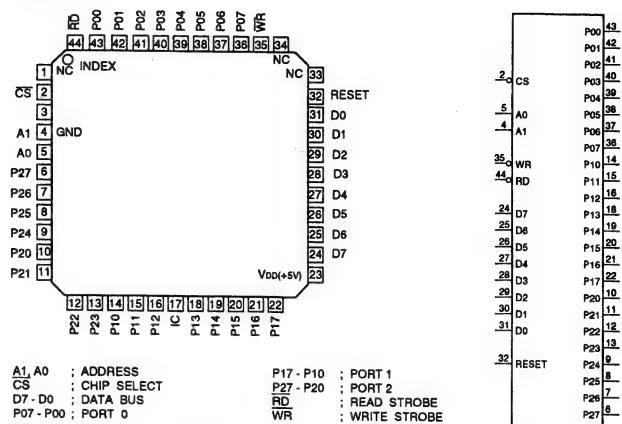


CK : CLOCK INPUT  
 CS : CHIP SELECT INPUT  
 CTS : CLEAR TO SEND OUTPUT  
 C/D : CONTROL/DATA SELECT INPUT  
 D0 - D7 : DATA INPUTS/OUTPUTS  
 DSR : DATA SET READY INPUT  
 DTR : DATA TERMINAL READY OUTPUT  
 TXCLK : TRANSMITTER CLOCK INPUT  
 TXDATA : TRANSMIT DATA OUTPUT  
 TXEMP : TRANSMITTER EMPTY OUTPUT

TXRDY : TRANSMIT READY OUTPUT  
 RD : READ STROBE INPUT  
 RESET : RESET INPUT  
 RTS : REQUEST TO SEND OUTPUT  
 RXCLK : RECEIVER CLOCK INPUT  
 RXDATA : RECEIVE DATA INPUT  
 RXRDY : RECEIVER READY OUTPUT  
 SYNC/BRK : SYNCHRONIZATION/BREAK INPUT/OUTPUT  
 WR : WRITE STROBE INPUT



## UPD71055GB-3B4 (NEC)FLAT PACKAGE

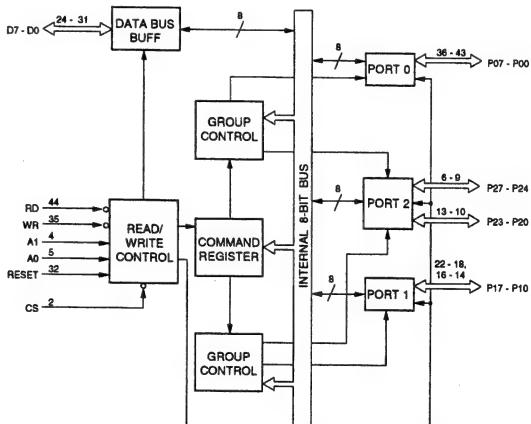
C-MOS PARALLEL INTERFACE UNIT  
—TOP VIEW—

A1, A0 : ADDRESS  
 CS : CHIP SELECT  
 D7 - D0 : DATA BUS  
 P07 - P00 : PORT 0  
 RD : READ STROBE  
 WR : WRITE STROBE

IC : INTERNALLY CONNECTED

CS	RD	WR	A1	A0	OPERATION	CPU ACTION
0	0	1	0	0	PORT0 → DATA + BUS	INPUT
0	0	1	0	1	PORT1 → DATA + BUS	INPUT
0	0	1	1	0	PORT2 → DATA + BUS	INPUT
0	0	0	X	X	DISABLE	
0	1	0	0	0	DATA + BUS → PORT0	OUTPUT
0	1	0	0	1	DATA + BUS → PORT1	OUTPUT
0	1	0	1	0	DATA + BUS → PORT2	OUTPUT
0	1	1	X	X	DATA + BUS → COMMAND REGISTER	OUTPUT
1	X	X	X	X	HIGH IMPEDANCE	

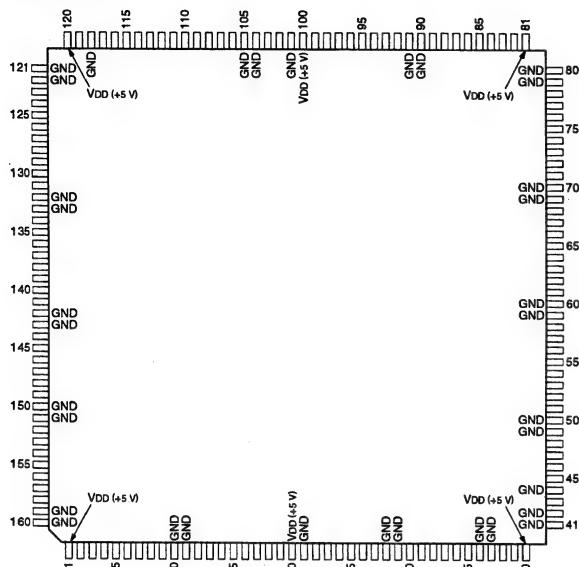
0 : LOW LEVEL  
 1 : HIGH LEVEL  
 X : DONT CARE



## CxD8677Q (SONY)

## C-MOS GATE ARRAY

—TOP VIEW—

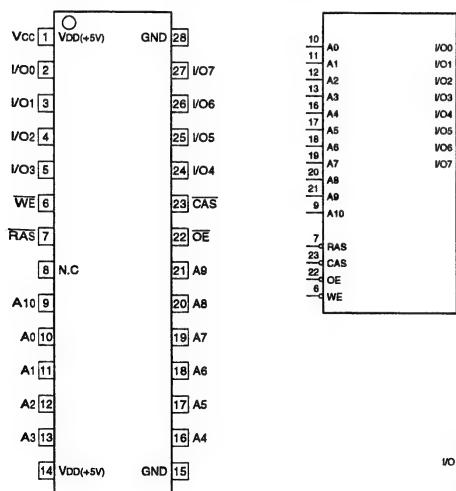


		(VDD = +5 V)															
PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	—	Vdd	33	O	DA2	65	O	PDD12	97	I	CPUA5	129	O	NIFCSO			
2	I	SD7	34	O	DA1	66	O	PDD13	98	I	CPUA6	130	O	NIFWR			
3	I	SD6	35	O	DA0	67	O	PDD14	99	I	CPUA7	131	O	NIFRD			
4	I	SD5	36	—	GND	68	O	PDD15	100	—	Vdd	132	—	GND			
5	I	SD4	37	—	GND	69	—	GND	101	—	GND	133	—	GND			
6	I	SD3	38	O	NCS8	70	—	GND	102	I	CPUA8	134	I/O	IFD0			
7	I	SD2	39	O	NRAS	71	O	PDD16	103	I	CPUA9	135	I/O	IFD1			
8	I	SD1	40	—	Vdd	72	O	PDD17	104	—	GND	136	I/O	IFD2			
9	I	SD0	41	—	GND	73	O	PDD18	105	—	GND	137	I/O	IFD3			
10	—	GND	42	—	GND	74	O	PDD19	106	O	NSTOP	138	I/O	IFD4			
11	—	GND	43	O	NDWE	75	O	PDD20	107	O	CPUREF	139	I/O	IFD5			
12	I/O	OD7	44	—	GND	76	O	PDD21	108	O	NCPUINT2	140	I/O	IFD6			
13	I/O	DD6	45	O	DLYCLK0	77	O	PDD22	109	O	NCPUINT1	141	I/O	IFD7			
14	I/O	DD5	46	O	DLYCLK1	78	O	PDD23	110	O	NCPUINT0	142	—	GND			
15	I/O	DD4	47	O	DLYCLK2	79	—	GND	111	I	NIDMAEN	143	—	GND			
16	I/O	DD3	48	O	DLYCLK3	80	—	GND	112	I	NAREALD	144	—	GND			
17	I/O	DD2	49	—	GND	81	—	Vdd	113	I	CPUMOD	145	O	IFA0			
18	I/O	DD1	50	—	GND	82	O	CPU7	114	I	CUP	146	O	IFA1			
19	I/O	DD0	51	O	PDD0	83	O	CPU6	115	O	DMABSY	147	O	IFA3			
20	—	Vdd	52	O	PDD1	84	O	CPU5	116	I	NCPURD	148	O	IFA4			
21	—	GND	53	O	PDD2	85	O	CPU4	117	I	NCPUWR	149	O	IFA5			
22	O	DA11	54	O	PDD3	86	O	CPU3	118	—	GND	150	—	GND			
23	O	DA10	55	O	PDD4	87	O	CPU2	119	I	CLK	151	—	GND			
24	O	DA9	56	O	PDD5	88	O	CPU1	120	—	Vdd	152	I	NINT0			
25	O	DA8	57	O	PDD6	89	O	CPU0	121	—	GND	153	I	NINT1			
26	O	DA7	58	O	PDD7	90	—	GND	122	—	GND	154	I	NINT2			
27	O	DA6	59	—	GND	91	—	GND	123	I	NRES	155	I	ISTB			
28	—	GND	60	—	GND	92	I	CPU0	124	I	NIFCSI	156	O	NSRED			
29	—	GND	61	O	PDD8	93	I	CPU1	125	I	NCPUCS2	157	O	NSACK			
30	O	DA5	62	O	PDD9	94	I	CPU2	126	I	NCPUCS1	158	I	SDRQ			
31	O	DA4	63	O	PDD10	95	I	CPU3	127	I	NCPUCS0	159	—	GND			
32	O	DA3	64	O	PDD11	96	I	CPU4	128	I	TEST	160	—	GND			

## HM5117800CJ-6EL (HITACHI)

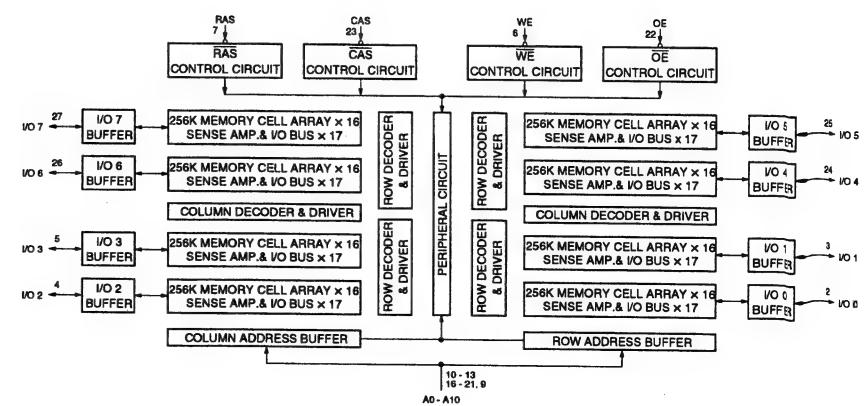
## C-MOS 2,097,152-WORD × 8-BIT DYNAMIC RAM

—TOP VIEW—

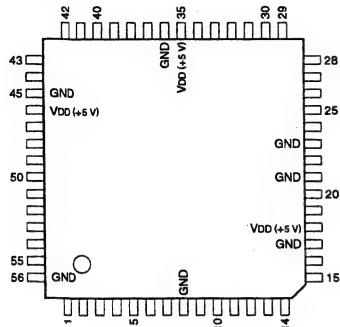


**INPUT**  
 A0-A10 : ADDRESS  
 RAS : ROW ADDRESS STROBE  
 CAS : COLUMN ADDRESS STROBE  
 OE : OUTPUT ENABLE  
 WE : WRITE ENABLE

**INPUT/OUTPUT**  
 I/O0-I/O7 : DATA INPUT/OUTPUT

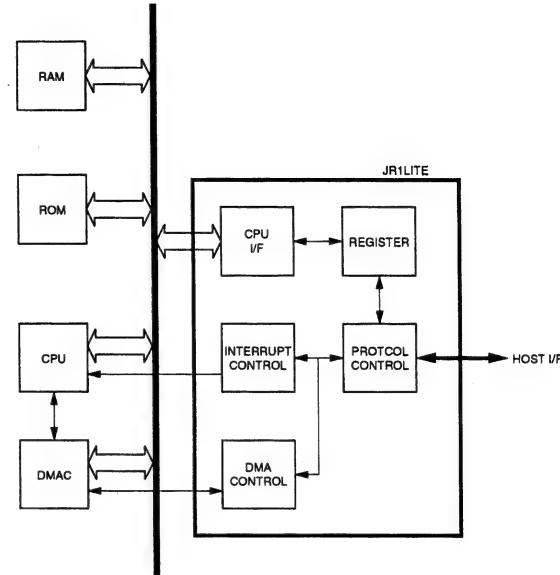


## TE6137 (TOKYO ELECTRON)

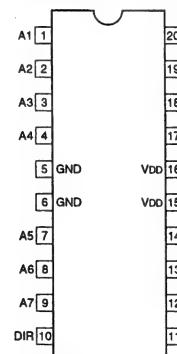
C-MOS IEEE 1284 PERIPHERAL CONTROLLER  
—TOP VIEW—

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	O	BP0INT2	15	I/O	bD1	29	I	BP0END1	43	I/O	BPbD1
2	O	BP0INT1	16	I/O	bD0	30	I	BP0AK0	44	I/O	BPbD0
3	O	BP0INT0	17	—	GND	31	O	BP0	45	—	GND
4	I	IA3	18	—	VDD	32	O	BP0DEND0	46	—	VDD
5	I	IA2	19	I	IRD/RW	33	I	BPICLS	47	I	BP0SEI
6	I	IA1	20	I	WR/EN	34	O	BP0RT	48	I	BP0AF
7	I	IA0	21	—	GND	35	—	VDD	49	I	BP0INI
8	—	GND	22	I	BPICLK	36	—	GND	50	I	BP0STB
9	I/O	bD7	23	—	GND	37	I/O	BP0D7	51	O	BP0PE
10	I/O	bD6	24	I	IRST	38	I/O	BP0D6	52	O	BP0ACK
11	I/O	bD5	25	I	ICIS	39	I/O	BP0D5	53	O	BP0BY
12	I/O	bD4	26	I	ICS	40	I/O	BP0D4	54	O	BP0FT
13	I/O	bD3	27	I	BP0AK1	41	I/O	BP0D3	55	O	BP0SE
14	I/O	bD2	28	O	BP0DRO1	42	I/O	BP0D2	56	—	GND

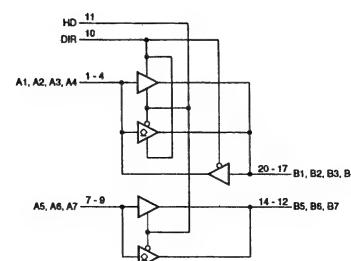
INPUT	
BP0AF	: COMPATIBILITY = n AUTO Fd
BPICLK	: CLOCK
BPICLS	: COMPATIBILITY MODE LEVEL SELECT
BP0AK0	: DMA ACKNOWLEDGE0
BP0AK1	: DMA ACKNOWLEDGE1
BP0END1	: DMA END1
BP0INI	: COMPATIBILITY = n INITIAL
BP0SEI	: COMPATIBILITY = n SELECT IN
BP0STB	: COMPATIBILITY = n STROBE
IA0 - IA3	: ADDRESS
ICIS	: CPU INTERFACE SELECT
ICS	: CHIP SELECT
IRD/RW	: READ/READ WRITE SELECT
IRST	: RESET
WR/EN	: WRITE/ENABLE
OUTPUT	
BP0ACK	: COMPATIBILITY = n ACK
BP0BY	: COMPATIBILITY = BUSY
BP0DEND0	: DMA END0
BP0DRO0	: DMA REQUEST0
BP0DRO1	: DMA REQUEST1
BP0FT	: COMPATIBILITY = n FAULT
BP0INT0	: INTERRUPT REQUEST0
BP0INT1	: INTERRUPT REQUEST1
BP0INT2	: INTERRUPT REQUEST2
BP0PE	: COMPATIBILITY = P ERROR
BP0RT	: INDICATE REVERSE TRANSFER
BP0SE	: COMPATIBILITY = SELECT
INPUT/OUTPUT	
bD0 - bD7	: DATA BUS
BP0D0 - BP0D7	: COMPATIBILITY = DATA



## SN74ACT1284NS-E05 (TI)

C-MOS 7-BIT BUS INTERFACE 3-STATE OUTPUT  
—TOP VIEW—

INPUT	OUTPUT	MODE
DIR/HD	OPEN DRAIN	A TO B: BITS 5, 6, 7
0	TOTEM POLE	B TO A: BITS 1, 2, 3, 4
0	TOTEM POLE	AND A TO B: BITS 5, 6, 7
1	OPEN DRAIN	A TO B: BITS 1, 2, 3, 4, 5, 6, 7
1	TOTEM POLE	A TO B: BITS 1, 2, 3, 4, 5, 6, 7
DIR	0 : LOW LEVEL	
	1 : HIGH LEVEL	



## SECTION 8 SPARE PARTS

### 8-1. NOTES ON SPARE PARTS

#### (1) Safety Related Components Warning

Components marked  $\Delta$  are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

#### (2) Standardization of Parts

Spare parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".

This manual's exploded views and electrical spare parts list are indicating the part numbers of "the standardized genuine parts at present".

#### (3) Stock of Parts

Parts marked with "o" SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

#### (4) Units for Capacitors, Inductors and Resistors

The following units are assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitors :  $\mu\text{F}$   
Inductors :  $\mu\text{H}$   
Resistors :  $\Omega$

### 8-1. 補修用部品注意事項

#### (1) 安全重要部品

##### $\Delta$ 警告

$\Delta$ 印のついた部品は安全性を維持するために重要な部品です。したがって、交換する時は必ず指定の部品を使ってください。

#### (2) 部品の共通化

ソニーから供給される部品は、セットに実装されているものと異なることがあります。これは部品の共通化、改良等によるものです。

分解図や電気部品表には現時点での共通化された部品が記載されています。

#### (3) 部品の在庫

部品表のSP (Supply code) 欄に o で示される部品は交換頻度が低い部品ですので在庫していないことがあります、納期が長くなることがあります。

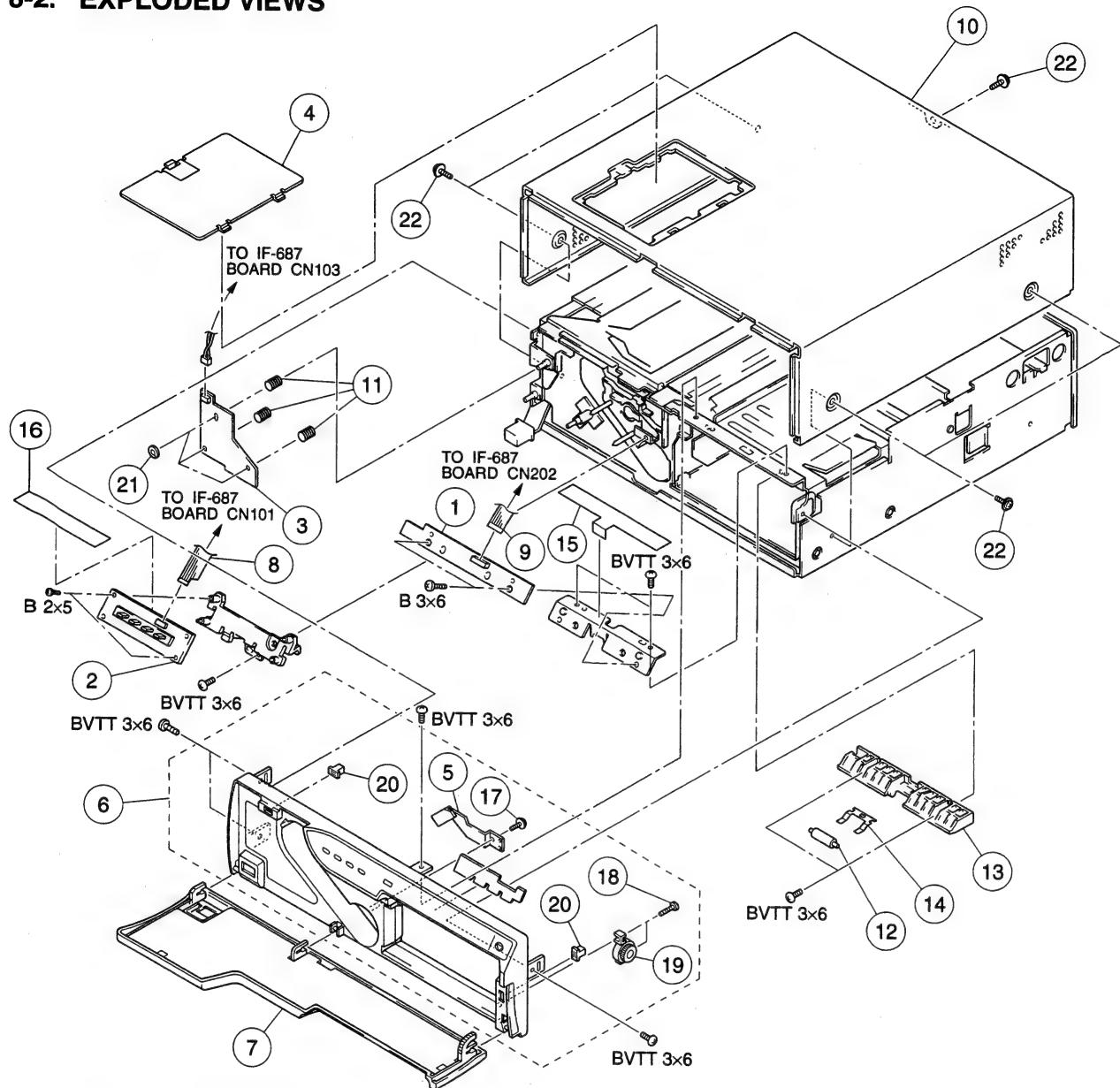
#### (4) コンデンサー、インダクター、抵抗の単位

回路図、分解図、電気部品表中、特に明記したものを見き、下記の単位は省略されています。

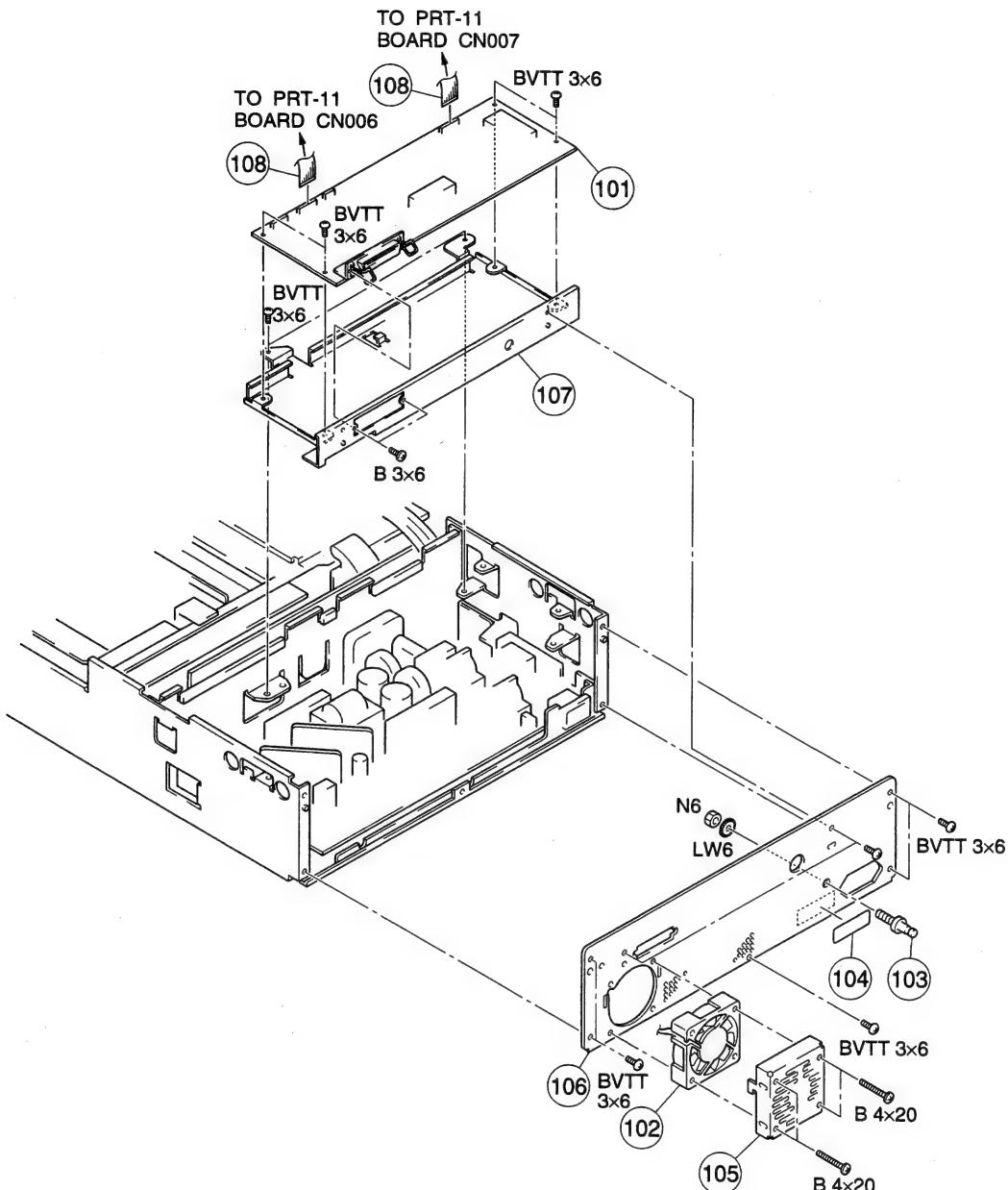
コンデンサー :  $\mu\text{F}$   
インダクター :  $\mu\text{H}$   
抵抗 :  $\Omega$

## FRONT PANEL, CABINET BLOCK

### 8-2. EXPLODED VIEWS

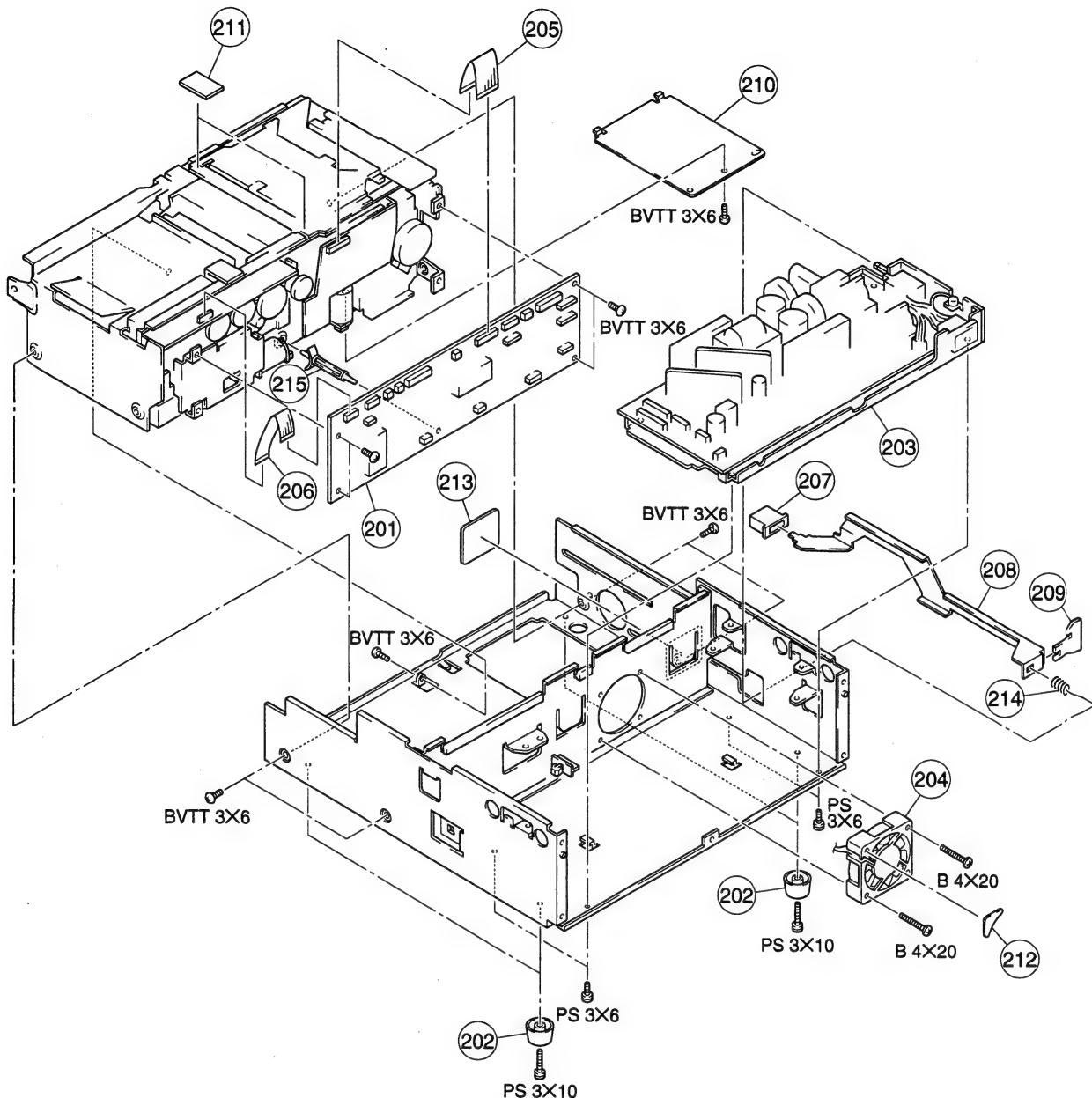


No.	Part No.	SP Description	No.	Part No.	SP Description
1	A-8316-188-A	o MOUNTED CIRCUIT BOARD, KY-401(D) [for UP-D2500]	9	1-782-730-11	s WIRE, FLAT TYPE (14-CORE)
	A-8316-464-A	o MOUNTED CIRCUIT BOARD, KY-401(3P) [for UP-D2550]	10	3-608-956-02	o COVER, TOP
2	A-8316-194-A	o MOUNTED CIRCUIT BOARD, LE-190	11	3-609-320-01	s SPRING, COMPRESSION
3	A-8316-356-A	o MOUNTED CIRCUIT BOARD, KY-422	12	3-609-524-01	s ROLLER, SUPPORT PAPER EJECT
4	X-3679-335-3	o LID ASSY, TOP COVER	13	3-609-527-01	s GUIDE, PAPER FRONT
5	X-3679-336-1	s SPRING ASSY, RIBBON EJECT	14	3-609-529-01	s SPRING, ROLLER PAPER EJECT
6	X-3679-377-2	s PANEL ASSY, FRONT [for UP-D2500]	15	3-611-669-01	o SHEET, KY
	X-3679-409-1	s PANEL ASSY, FRONT (D2550) [for UP-D2550]	16	3-611-670-01	o SHEET, ELECTROSTATIC
7	X-3679-378-1	s DOOR ASSY, FRONT (D2500) [for UP-D2500]	17	3-669-480-21	s SCREW, + PTPWH 2
8	X-3679-410-1	s DOOR ASSY, FRONT (D2550) [for UP-D2550]	18	3-713-790-31	s SCREW (M2X8), TAPPING, P3
	1-782-729-11	s WIRE, FLAT TYPE (7-CORE) [for J, UC]	19	3-721-204-11	s DAMPER
	1-782-906-11	s WIRE, FLAT (WITH SHIELD) (7-CORE) [for CE]	20	3-736-779-21	s MAGNET
			21	4-862-338-00	s RING, STOPPER
			22	4-886-821-11	s SCREW, M3 CASE



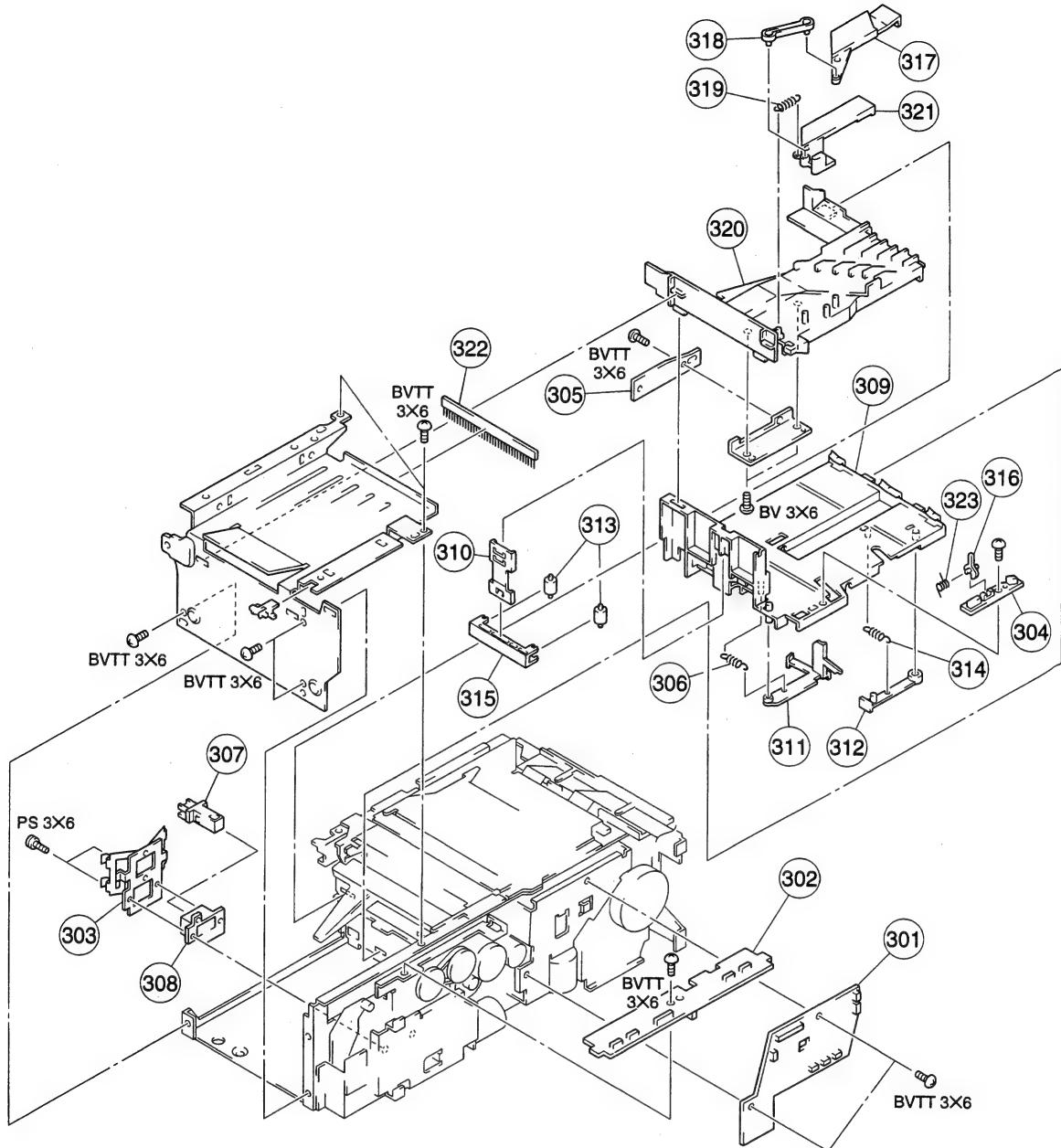
No.	Part No.	SP Description	No.	Part No.	SP Description
101	A-8316-192-A	o MOUNTED CIRCUIT BOARD, IF-687 [for UP-D2500]	103	3-175-740-01	s TERMINAL[for CE]
	A-8316-466-A	o MOUNTED CIRCUIT BOARD, IF-687(3P) [for UP-D2550]	104	3-179-847-01	o LABEL(NORTHERN EUROPE), CAUTION[for CE]
102	1-541-684-51	s MOTOR, DC	105	3-608-999-01	o COVER, FAN
			106	3-609-584-01	o PANEL, REAR[for J, UC]
				3-609-590-01	o PANEL, REAR[for CE]
			107	3-609-596-01	o HOLDER, IF
			108	1-782-734-11	s WIRE, FLAT TYPE (14-CORE)

## **SWITCHING REGULATOR**



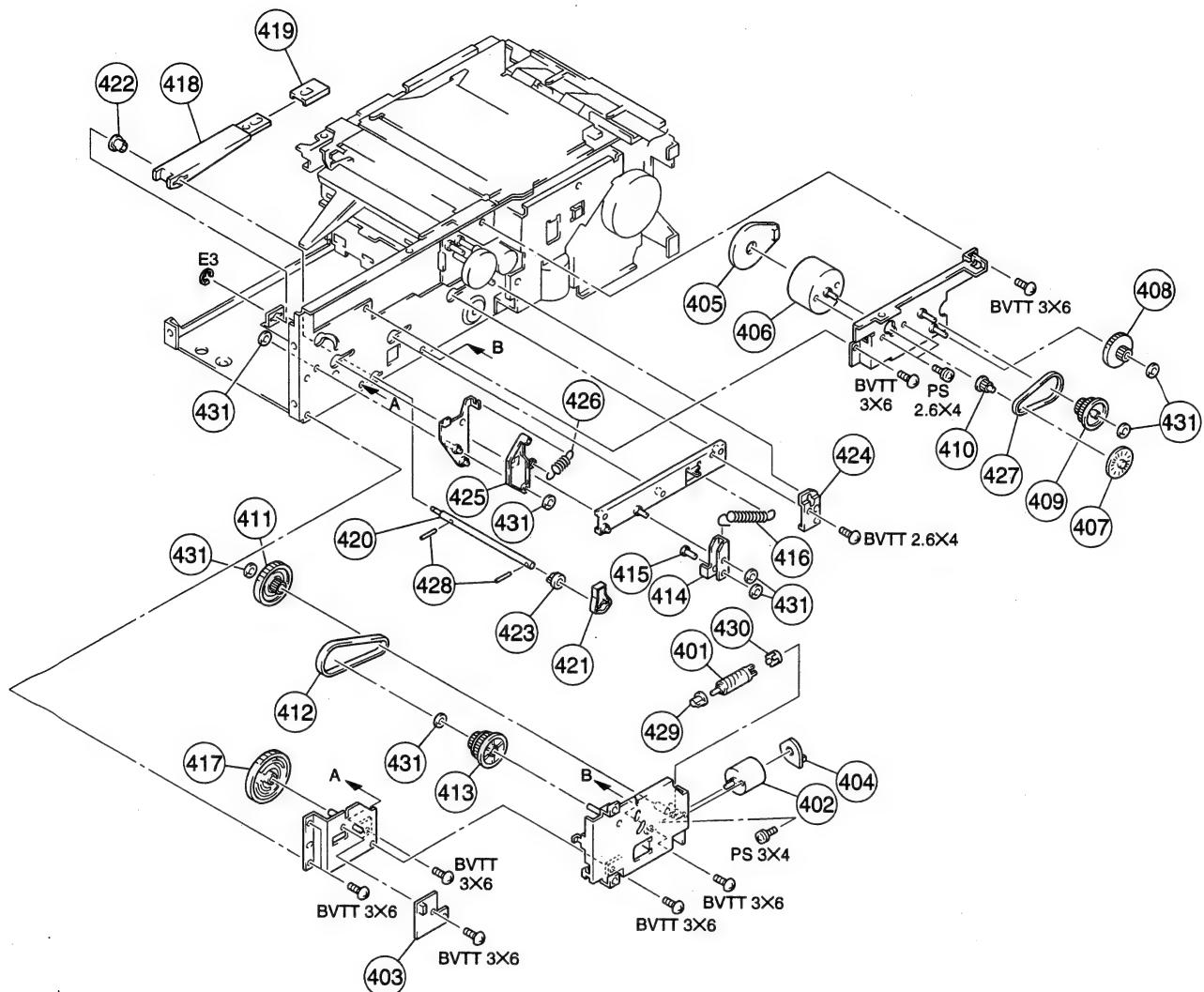
No.	Part No.	SP Description	No.	Part No.	SP Description
201	A-8316-354-A	o MOUNTED CIRCUIT BOARD, PRT-11 (D)	210	3-609-303-01	o LID, MECHA CHASISS
202	X-3566-109-0	s FOOT ASSY, MF	211	3-609-678-01	o SPACER
203	△ 1-468-250-13	s REGULATOR, SWITCHING	212	3-609-783-01	o STOPPER, WIRE
△ 204	1-576-232-41	s FUSE 5A 250V)	213	3-611-257-01	o SHEET, PROTECTION
			214	3-611-601-01	s SPRING, COMPRESSION
205	1-782-735-11	s WIRE, FLAT TYPE (22-CORE)	215	3-703-353-12	o SUPPORTER, PC BOARD
206	1-782-736-11	s WIRE, FLAT TYPE (12-CORE)			
207	2-431-568-31	s BUTTON, POWER			
208	3-608-957-01	o ROD, POWER SWITCH			
209	3-608-958-01	s STOPPER, ROD			

## MECHANISM BLOCK (1)



No.	Part No.	SP Description	No.	Part No.	SP Description
301	A-8315-872-A	o MOUNTED CIRCUIT BOARD, SE-417	311	3-608-989-02	s ARM, PAPER SENSOR
302	A-8315-874-A	o MOUNTED CIRCUIT BOARD, SE-418	312	3-608-996-01	s ARM
303	X-3679-339-1	o SPRING ASSY, PAPER PUSH	313	3-608-997-01	s ROLLER
304	1-666-986-11	o PRINTED CIRCUIT BOARD, SE-426	314	3-608-998-01	s SPRING, EXTENSION(TRAY OUT)
305	1-666-998-11	o PRINTED CIRCUIT BOARD, SE-430	315	3-609-309-01	s HOLDER
306	3-183-184-01	s SPRING, EXTENSION	316	3-609-353-01	s ARM, PE SENSOR
307	3-193-308-01	s CATCHER, PUSH	317	3-609-509-02	s LEVER, SUPPORT PAPER EJECT
308	3-608-981-02	s HOLDER, PUSH-CATCHER	318	3-609-510-01	s LEVER, JOINT PAPER EJECT
309	3-608-983-02	s RETAINER, PAPER SUPPLY TRAY	319	3-609-520-01	s SPRING, EXTENSION(PE A)
310	3-608-988-01	s SPRING, TRAY PUSH	320	3-609-525-02	s BASE, PAPER EJECT
			321	3-609-526-02	s LEVER, PAPER EJECT
			322	3-609-530-01	o ELIMINATOR, STATIC ELECTRICITY
			323	3-683-691-01	s SPRING, HELICAL TORSION(SENSOR)

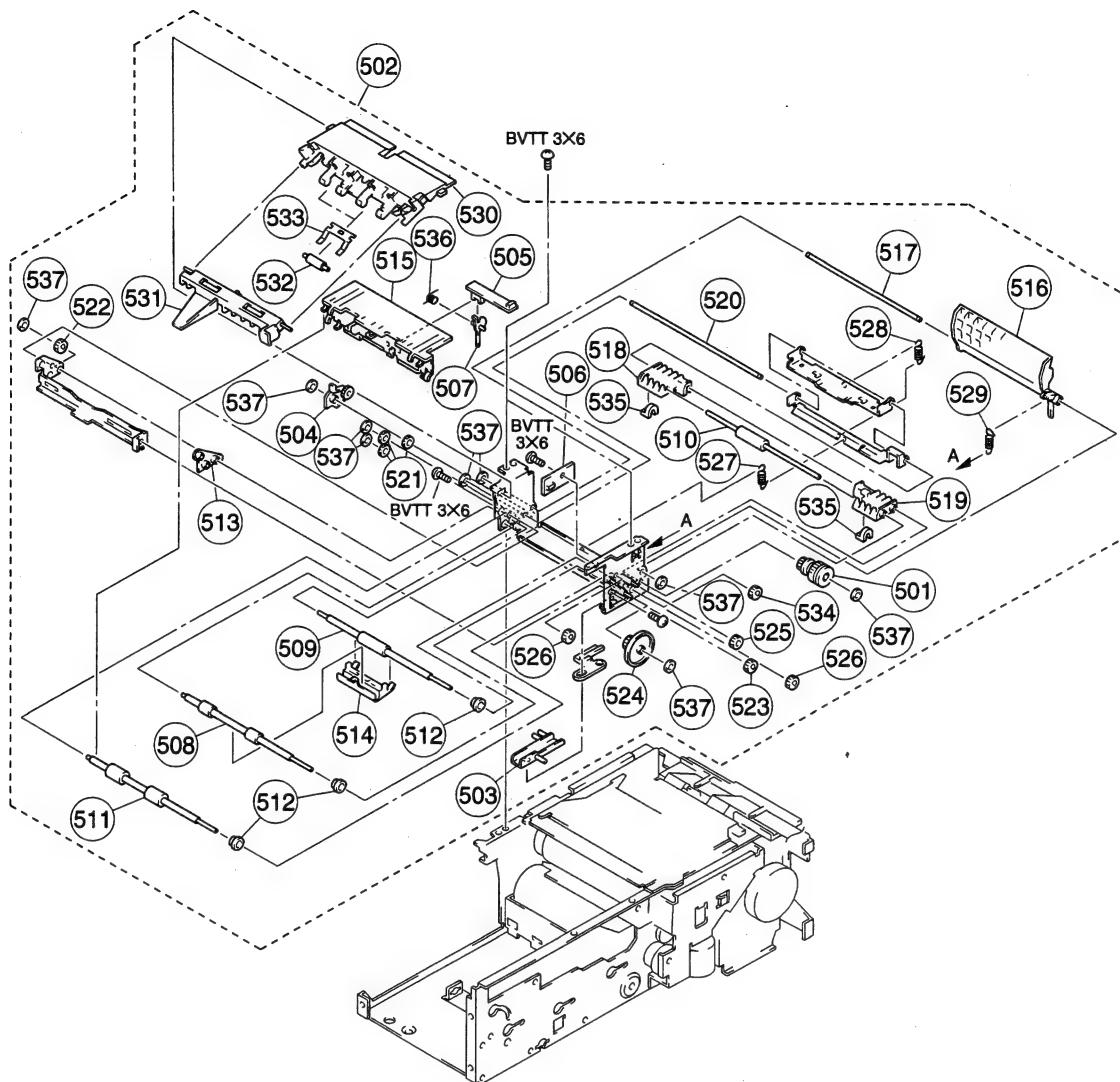
## MECHANISM BLOCK (2)



No.	Part No.	SP Description	No.	Part No.	SP Description
401	X-3679-355-1	s GEAR ASSY, WORM	416	3-609-419-01	s SPRING, EXTENSION
402	1-541-309-11	s MOTOR, L(RF-370C)	417	3-609-422-02	s CAM, TRAY MOTOR
403	1-666-997-11	o PRINTED CIRCUIT BOARD, SE-429	418	3-609-423-01	o ARM, PAPER SUPPLY
404	1-667-001-11	o PRINTED CIRCUIT BOARD, SU-38	419	3-609-424-01	s CAP, ARM
405	1-667-002-11	o PRINTED CIRCUIT BOARD, SU-39	420	3-609-425-01	o SHAFT, PAPER SUPPLY ARM
*406	1-698-323-11	s MOTOR, DC	421	3-609-426-01	o LEVER, PAPER SUPPLY
407	3-173-567-02	s FIN, FG	422	3-609-427-01	s BEARING, AS 4
408	3-609-398-01	s GEAR, PU B	423	3-609-428-01	s BEARING, AS 5
409	3-609-399-01	s GEAR PULLEY, PU	424	3-609-429-01	o PLATE, LINK JOINT
*410	3-609-400-02	s PULLEY, PAPER SUPPLY MOTOR	425	3-609-514-01	s LINK B, PAPER EJECT
411	3-609-408-02	s WORM WHEEL, TM	426	3-609-521-01	s SPRING, EXTENSION(PE B)
412	3-609-409-01	s BELT, 110TN15	427	3-686-322-01	s BELT, 72TN15
413	3-609-410-01	s GEAR PULLEY, TM	428	3-703-357-09	s PIN (DIA. 1.6 SERISE)
414	3-609-417-02	o LINK, PAPER SUPPLY LEVER	429	3-737-880-01	s CAP, WORM SHAFT
415	3-609-418-01	o PIN, PS LEVER LINK	430	3-737-886-01	s TABLET, WORM
			431	4-926-219-02	s RING (DIA.2, 3), RETAINING

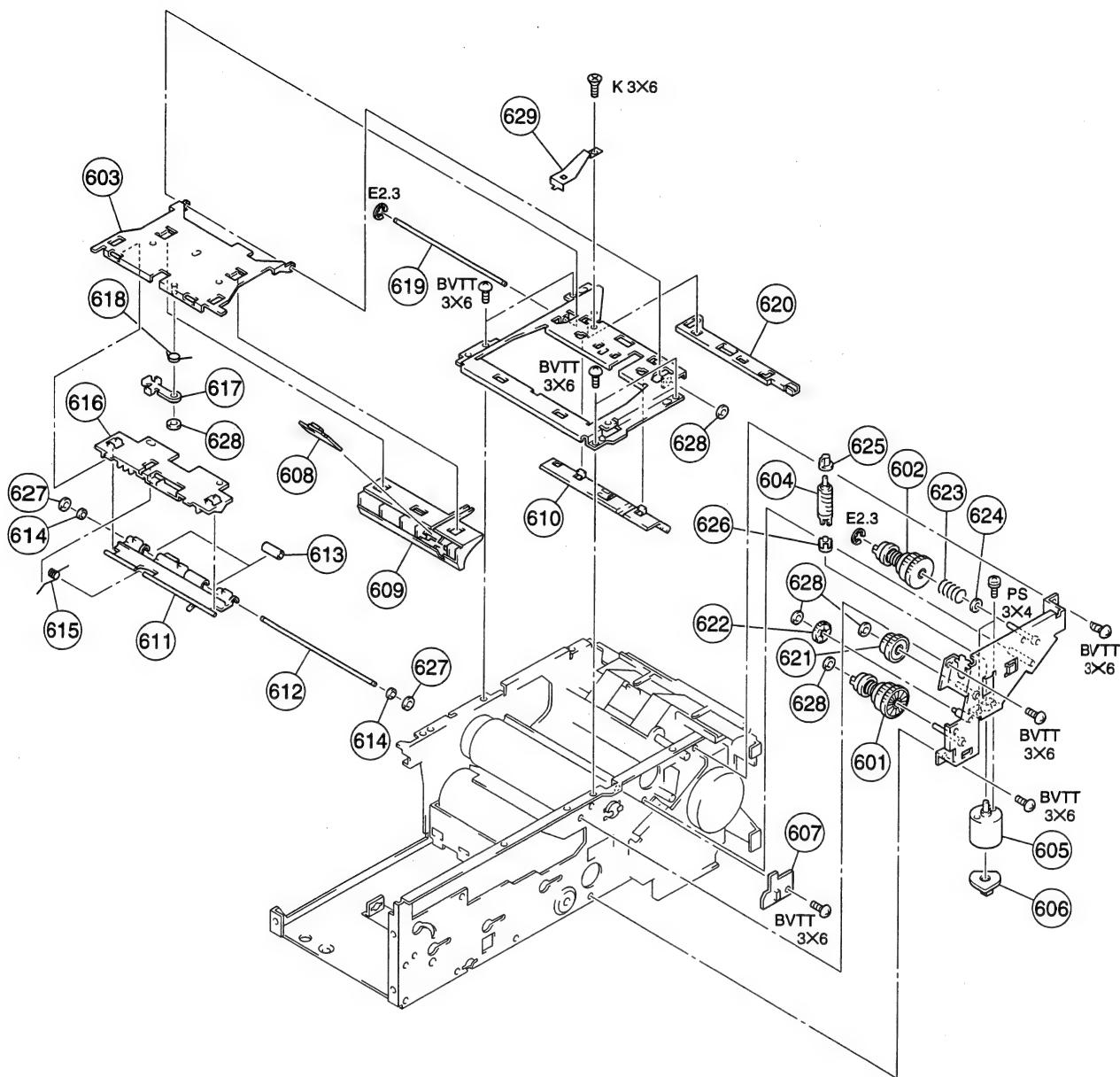
**\*NOTE :When replacing the motor of No.406, it is necessary to replace the pulley of No.410.**

### MECHANISM BLOCK (3)

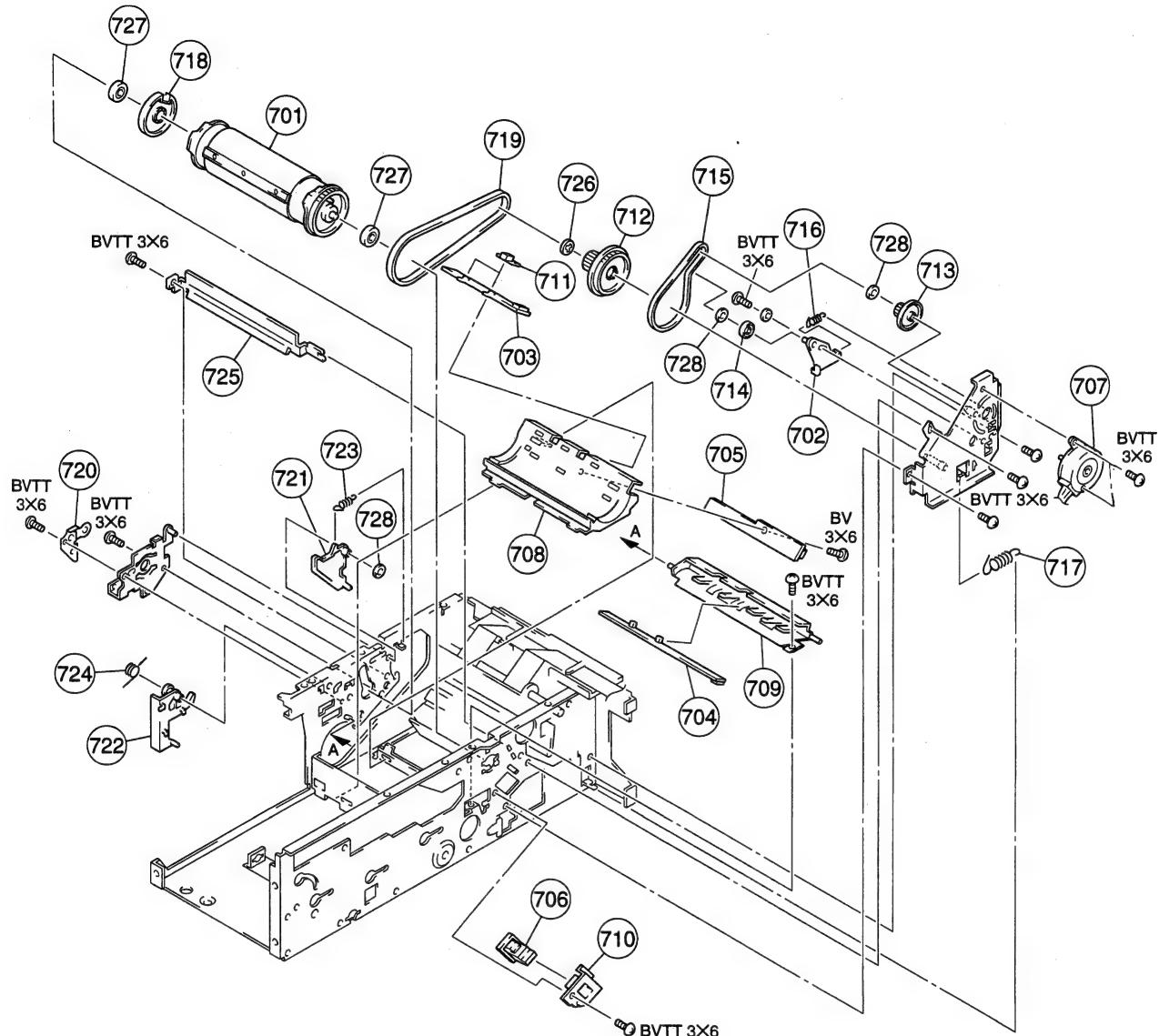


No.	Part No.	SP Description	No.	Part No.	SP Description
501	A-8278-640-A	s GEAR ASSY, P LIMITER	521	3-609-384-01	s GEAR, BC B
502	A-8315-915-A	o PREPARE BLOCK ASSY, PAPER	522	3-609-385-01	s GEAR, BC C
503	X-3679-353-1	o LINK ASSY, PS BLOCK	523	3-609-386-01	s GEAR, PICK UP
504	X-3679-356-1	s ARM ASSY, BC	524	3-609-387-01	s GEAR, PU A
505	1-666-987-11	o PRINTED CIRCUIT BOARD, SE-427	525	3-609-388-01	s GEAR, P SUPPLY IDLER
506	1-666-988-11	o PRINTED CIRCUIT BOARD, SE-428	526	3-609-389-01	s GEAR, SEPARATION
507	3-609-353-01	s ARM, PE SENSOR	527	3-609-391-01	s SPRING, EXTENSION
508	3-609-369-01	s ROLLER, PICK UP	528	3-609-392-01	s SPRING, EXTENSION
509	3-609-370-01	s ROLLER, PAPER SUPPLY	529	3-609-394-01	s SPRING, EXTENSION
510	3-609-371-01	s ROLLER, PAPER SEPARATION	530	3-609-500-02	s GUIDE, PAPER EJECT
511	3-609-372-01	s ROLLER, PAPER EJECT	531	3-609-523-01	s FLAP, PAPER EJECT
512	3-609-373-02	o BEARING, ROLLER M	532	3-609-524-01	s ROLLER, SUPPORT PAPER EJECT
513	3-609-374-01	s BEARING, ROLLER B	533	3-609-529-01	s SPRING, ROLLER PAPER EJECT
514	3-609-375-01	s FLAP, PAPER RESTRAIN	534	3-609-700-01	s GEAR, PAPER SUPPLY
515	3-609-376-01	s GUIDE, P SUPPLY/EJECT ROLLER	535	3-611-296-01	o GUIDE, PAPER
516	3-609-377-01	s FLAP, PAPER LEAD	536	3-683-691-01	s SPRING, HELICAL TORSION(SENSOR)
517	3-609-378-01	o SHAFT, PL FLAP	537	4-926-219-02	s RING (DIA.2.3), RETAINING
518	3-609-380-01	s BEARING, SEPARATION ROLLER F			
519	3-609-381-01	s BEARING, SEPARATION ROLLER B			
520	3-609-382-01	o SHAFT, SEPARATION ROLLER PIVOT			

## MECHANISM BLOCK (4)

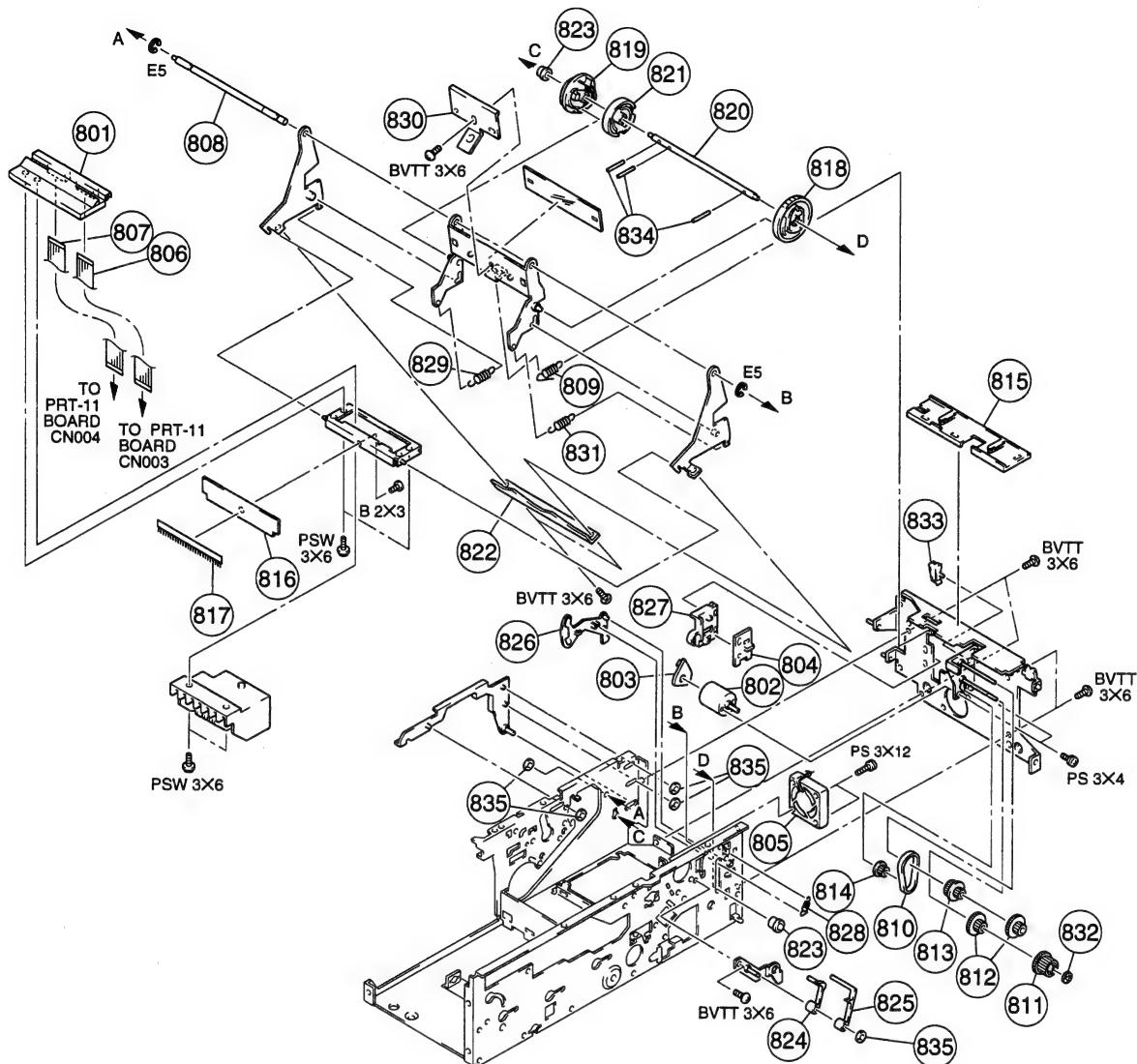


No.	Part No.	SP Description	No.	Part No.	SP Description
601	A-8278-645-A	s LIMITER ASSY, RIBBON T	616	3-609-457-02	s STAY, PH ARM
602	A-8278-646-A	s LIMITER ASSY, RIBBON S	617	3-609-458-01	s LOCK, PLATEN COVER
603	X-3679-368-1	o COVER ASSY, PLATEN	618	3-609-459-01	s SPRING, TORSION(PC LOCK)
604	X-3737-811-1	s WORM BLOCK ASSY	619	3-609-493-01	o SHAFT, PLATEN COVER
605	1-541-309-11	s MOTOR, L (RF-370C)	620	3-609-494-01	s GUIDE, HEAD HARNESS
606	1-667-000-11	o PRINTED CIRCUIT BOARD, SU-37	621	3-609-498-01	s WHEEL, RIBBON WORM
607	1-667-005-11	o PRINTED CIRCUIT BOARD, SE-419	622	3-609-499-01	s GEAR, IDLER RIBBON
608	1-667-007-11	o PRINTED CIRCUIT BOARD, SE-422	623	3-609-519-01	s SPRING, COMPRESSION (RIBBON B)
609	3-608-985-01	s GUIDE, RIBBON TP	624	3-701-445-11	s WASHER, 7
610	3-608-986-01	s GUIDE, RIBBON T1	625	3-737-880-01	s CAP, WORM SHAFT
611	3-609-452-02	s ARM, HOLD PAPER	626	3-737-886-01	s TABEL, WORM
612	3-609-453-01	o SHAFT, HOLD PAPER	627	4-926-218-01	s RING (DIA.2), RETAINING
613	3-609-454-01	s ROLLER, HOLD PAPER	628	4-926-219-02	s RING (DIA.2.3), RETAINING
614	3-609-455-01	s ROLLER, GUIDE HOLD PAPER	629	3-611-600-01	s ROCK, PLATEN COVER[for UC]
615	3-609-456-01	s SPRING, TORSTON(PAPER HOLD)			



No.	Part No.	SP Description	No.	Part No.	SP Description
701	A-8315-909-A	s PLATEN BLOCK ASSY	716	3-609-351-01	s SPRING, EXTENSION
702	X-3679-359-1	o BRACKET ASSY, IDLER PLATEN	717	3-609-352-01	s SPRING, EXTENSION
703	1-666-983-11	o PRINTED CIRCUIT BOARD, SE-423	718	3-609-477-01	o CAM, TIMING CHUCK
704	1-666-984-11	o PRINTED CIRCUIT BOARD, SE-424	719	3-609-479-01	s BELT, 160TN15
705	1-666-985-11	o PRINTED CIRCUIT BOARD, SE-425	720	3-609-482-01	o SPRING, EARTH PLATEN
706	1-692-960-11	s SWITCH, PUSH (1 KEY)	721	3-609-486-01	s LINK B, CHUCK
707	1-698-555-21	s MOTOR, STEPPING(PM42S-048-SNA6)	722	3-609-487-01	s STOPPER, GEAR BARCORD
708	3-608-982-01	o GUIDE, RIBBON U	723	3-609-491-01	s SPRING, EXTENSION
709	3-608-984-02	s GUIDE, RIBBON M	724	3-609-492-01	s SPRING, TORSION(BC STOPPER)
710	3-608-987-02	s HOLDER, RIBBON PUSH-CATCHER	725	3-609-495-01	o GUIDE, PLATEN
711	3-608-995-01	o COVER, SENSOR	726	3-650-537-00	o WASHER
712	3-609-347-01	s PULLEY, PLATEN	727	3-683-140-01	o FLANGELESS BALL BEARING
713	3-609-348-01	s PULLEY, PLATEN GEAR	728	4-926-219-02	s RING (DIA.2.3), RETAINING
714	3-609-349-01	s IDLER, PLATEN			
715	3-609-350-01	s BELT, 120TN15			

## MECHANISM BLOCK (6)



No.	Part No.	SP Description	No.	Part No.	SP Description
801	1-500-474-11	s HEAD, THERMAL (LV6103)	821	3-609-476-02	s PLATE, SENSOR HEAD
*802	1-541-309-11	s MOTOR, L(RF-370C)	822	3-609-480-01	o PRESSER, HEAD
803	1-666-999-11	o PRINTED CIRCUIT BOARD, SU-36	823	3-609-481-01	s BEARING, CAM HEAD
804	1-667-006-11	o PRINTED CIRCUIT BOARD, SE-420	824	3-609-483-02	s HOOK A, LIMITER
805	1-763-007-11	s FAN, DC	825	3-609-484-01	s HOOK B, LIMITER
806	1-782-738-11	s WIRE, FLAT TYPE (21 CORE)	826	3-609-485-01	s LINK, LIMITER
807	1-782-739-11	s WIRE, FLAT TYPE (19 CORE)	827	3-609-488-01	s HOLDER, SENSOR HEAD
808	3-609-437-01	o SHAFT, LINK HEAD	828	3-609-496-01	s SPRING, EXTENSION
809	3-609-438-01	s SPRING, EXTENSION	829	3-609-763-01	s SPRING, EXTENSION
810	3-609-444-01	s BELT, 79TN15	830	3-611-214-01	s SPRING, HEAD
811	3-609-445-01	s GEAR A, HEAD	831	3-611-226-01	s SPRING, EXTENSION
812	3-609-446-01	s GEAR B, HEAD	832	3-650-537-00	o WASHER
813	3-609-447-01	s PULLEY, GEAR, HEAD	833	3-686-073-01	o CLAMP, HARNESS
*814	3-609-448-01	s PULLEY, HEAD MOTOR	834	3-703-357-09	s PIN (DIA. 1.6 SERISE)
815	3-609-449-01	s CLAMP, HARNESS	835	4-926-219-02	s RING (DIA.2.3), RETAINING
816	3-609-471-01	o GUIDE, RIBBON			
817	3-609-472-01	o ELIMINATOR, STATIC ELETRICITY			
818	3-609-473-02	s CAM B, HEAD			
819	3-609-474-02	s CAM F, HEAD			
820	3-609-475-01	o SHAFT, HEAD CAM			

\*NOTE : When replacing the motor of No.802, it is necessary to replace the pulley of No.814.

### 8-3. ELECTRICAL PARTS LIST

(IF-687/687(3P) BOARD)

IF-687/687(3P) BOARD		Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8316-466-A	o MOUNTED CIRCUIT BOARD, IF-687(3P)	C225	1-163-038-91 s CERAMIC, CHIP 0.1uF 25V
		[for UP-D2550]	C226	1-163-038-91 s CERAMIC, CHIP 0.1uF 25V
1pc	A-8316-192-A	o MOUNTED CIRCUIT BOARD, IF-687	C227	1-163-038-91 s CERAMIC, CHIP 0.1uF 25V
		[for UP-D2500]	C228	1-163-038-91 s CERAMIC, CHIP 0.1uF 25V
BZ101	1-529-080-11	s BUZZER, PIEZOELECTRIC	C229	1-126-204-11 s ELECT 47uF 20% 16V
C101	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	C230	1-163-038-91 s CERAMIC, CHIP 0.1uF 25V
C102	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	C231	1-163-038-91 s CERAMIC, CHIP 0.1uF 25V
C103	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	C232	1-126-204-11 s ELECT 47uF 20% 16V
C104	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	C233	1-126-204-11 s ELECT 47uF 20% 16V
C105	1-126-204-11	s ELECT 47uF 20% 16V	C234	1-163-038-91 s CERAMIC, CHIP 0.1uF 25V
C106	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	C235	1-163-038-91 s CERAMIC, CHIP 0.1uF 25V
C107	1-126-204-11	s ELECT 47uF 20% 16V	C236	1-126-204-11 s ELECT 47uF 20% 16V
C108	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN101	1-778-772-11 s CONNECTOR, FFC/FPC 7P
C110	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN102	1-774-771-11 s CONNECTOR, FFC/FPC 14P
C111	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN103	1-770-469-21 o CONNECTOR (PC BOARD) 2P
C112	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN201	1-774-627-11 s PIN, CONNECTOR (PC BOARD) 36P
C113	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN202	1-774-771-11 s CONNECTOR, FFC/FPC 14P
C114	1-126-204-11	s ELECT 47uF 20% 16V	CN203	1-779-993-11 s PIN, CONNECTOR 5P
C117	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN204	1-774-771-11 s CONNECTOR, FFC/FPC 14P
C118	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CNI210	1-526-660-21 o SOCKET, IC 32P
C119	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CNI212	1-526-659-00 o SOCKET, IC 28P
C120	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	D201	8-719-801-78 s DIODE 1SS184
C122	1-163-009-11	s CERAMIC, CHIP 0.001uF 10% 50V	FL201	1-233-316-21 s FILTER, CHIP EMI
C123	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL202	1-233-316-21 s FILTER, CHIP EMI
C124	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL203	1-233-316-21 s FILTER, CHIP EMI
C125	1-126-204-11	s ELECT 47uF 20% 16V	FL204	1-233-316-21 s FILTER, CHIP EMI
C126	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL205	1-233-316-21 s FILTER, CHIP EMI
C127	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL206	1-233-316-21 s FILTER, CHIP EMI
C128	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL207	1-233-316-21 s FILTER, CHIP EMI
C201	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL208	1-233-316-21 s FILTER, CHIP EMI
C202	1-126-204-11	s ELECT 47uF 20% 16V	FL209	1-233-316-21 s FILTER, CHIP EMI
C203	1-126-204-11	s ELECT 47uF 20% 16V	FL210	1-233-316-21 s FILTER, CHIP EMI
C204	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL211	1-233-316-21 s FILTER, CHIP EMI
C205	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V	FL212	1-233-316-21 s FILTER, CHIP EMI
C206	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V	FL213	1-233-316-21 s FILTER, CHIP EMI
C207	1-163-009-11	s CERAMIC, CHIP 0.001uF 10% 50V	FL214	1-233-316-21 s FILTER, CHIP EMI
C208	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL215	1-233-316-21 s FILTER, CHIP EMI
C209	1-126-204-11	s ELECT 47uF 20% 16V	FL216	1-233-316-21 s FILTER, CHIP EMI
C210	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	FL217	1-233-316-21 s FILTER, CHIP EMI
C211	1-163-009-11	s CERAMIC, CHIP 0.001uF 10% 50V	FL218	1-233-316-21 s FILTER, CHIP EMI
C212	1-163-009-11	s CERAMIC, CHIP 0.001uF 10% 50V	IC101	8-759-194-80 s IC CXD8869Q
C213	1-163-009-11	s CERAMIC, CHIP 0.001uF 10% 50V	IC102	8-759-461-91 s IC CXD8677Q
C214	1-115-339-11	s CERAMIC, CHIP 0.1uF 10% 50V	IC105	8-759-479-12 o IC MX27C4000MC-12-UP28S
C215	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V		[for UP-D2550]
C216	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC106	8-759-479-11 o IC MX27C4000MC-12-UP28M
C217	1-126-204-11	s ELECT 47uF 20% 16V		[for UP-D2550]
C218	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC107	8-759-486-81 s IC HM5117800CJ-6EL
C219	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC108	8-759-486-81 s IC HM5117800CJ-6EL [for UP-D2550]
C220	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC109	8-759-926-82 s IC SN74HC574ANS [for UP-D2550]
C221	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC110	8-759-925-90 s IC SN74HC74ANS [for UP-D2550]
C222	1-126-204-11	s ELECT 47uF 20% 16V	IC111	8-759-927-46 s IC SN74HC00ANS [for UP-D2550]
C223	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC201	8-759-464-95 s IC AK6420AF-E2
C224	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC202	8-759-927-29 s IC SN74HCU04ANS
			IC203	8-759-937-56 s IC S-8054ALB-LM
			IC204	8-759-254-94 s IC HD6413378F10
			IC205	8-759-434-21 s IC SN74ACT1284NS
			IC206	8-759-434-21 s IC SN74ACT1284NS

(IF-687/687(3P) BOARD)

Ref. No. or Q'ty	Part No.	SP Description
IC207	8-759-926-77 s	IC SN74HC541ANS
IC208	8-759-925-76 s	IC SN74HC08NS
IC209	8-759-461-92 s	IC TB6137
IC210	8-759-479-13 o	IC MX27C1000DC-D25SYV1.00
IC211	8-759-926-11 s	IC SN74HC138ANS
L101	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L102	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L103	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L104	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L105	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L106	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L107	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L108	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L201	1-424-653-11 s	COIL, CHOKE 10uH
L202	1-424-653-11 s	COIL, CHOKE 10uH
L203	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L204	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L205	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L206	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L207	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L208	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L209	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L210	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L211	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L212	1-414-235-11 s	INDUCTOR, FERRITE BEAD
L213	1-414-235-11 s	INDUCTOR, FERRITE BEAD
R105	1-216-025-00 s	METAL, CHIP 100 5% 1/10W
R106	1-216-025-00 s	METAL, CHIP 100 5% 1/10W
R107	1-216-025-00 s	METAL, CHIP 100 5% 1/10W
R110	1-216-073-00 s	METAL, CHIP 10K 5% 1/10W
R111	1-216-073-00 s	METAL, CHIP 10K 5% 1/10W
R112	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R113	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R114	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R115	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R116	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R117	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R118	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R119	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R120	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R121	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R122	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R123	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R124	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R125	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R126	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R127	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R128	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R129	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R130	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R131	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R132	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R133	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R134	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R135	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R136	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R137	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R138	1-216-017-91 s	METAL, CHIP 47 5% 1/10W

(IF-687/687(3P) BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R139	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R140	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R141	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R142	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R143	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R144	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R145	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R146	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R147	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R148	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R149	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R150	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R151	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R152	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R153	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R154	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R155	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R156	1-216-073-00 s	METAL, CHIP 10K 5% 1/10W
R157	1-216-073-00 s	METAL, CHIP 10K 5% 1/10W
R158	1-216-073-00 s	METAL, CHIP 10K 5% 1/10W
R159	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R160	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R161	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R162	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R163	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R164	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R165	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R166	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R167	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R168	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R169	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R170	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R171	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R172	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R173	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R174	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R175	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R176	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R177	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R178	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R179	1-216-073-00 s	METAL, CHIP 10K 5% 1/10W
R184	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R185	1-216-017-91 s	METAL, CHIP 47 5% 1/10W
R186	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R187	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R188	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R189	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R190	1-216-295-00 s	METAL, CHIP 0 5% 1/10W
R193	1-216-029-00 s	METAL, CHIP 150 5% 1/10W
R194	1-216-295-00 s	METAL, CHIP 0 5% 1/10W

UP-D2550(J)  
UP-D2500(UC,CE)

(IF-687/687(3P) BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R203	1-216-033-00	s METAL, CHIP 220 5% 1/10W
R204	1-216-121-91	s METAL, CHIP 1M 5% 1/10W
R205	1-216-033-00	s METAL, CHIP 220 5% 1/10W
R206	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R208	1-216-033-00	s METAL, CHIP 220 5% 1/10W
R209	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R211	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R213	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R215	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R217	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R219	1-216-037-00	s METAL, CHIP 330 5% 1/10W
R220	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R222	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R224	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R226	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R228	1-216-041-00	s METAL, CHIP 470 5% 1/10W
R229	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R231	1-216-041-00	s METAL, CHIP 470 5% 1/10W
R232	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R234	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R236	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R238	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R239	1-216-047-91	s METAL, CHIP 820 5% 1/10W
R240	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R242	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R244	1-216-089-91	s METAL, CHIP 47K 5% 1/10W
R245	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R246	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R248	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R249	1-216-097-91	s METAL, CHIP 100K 5% 1/10W
R250	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R251	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R252	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R253	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R254	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R255	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R256	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R257	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R258	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R259	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R260	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R261	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R262	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R263	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R264	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R265	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R266	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R267	1-216-017-91	s METAL, CHIP 47 5% 1/10W
R268	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R269	1-216-089-91	s METAL, CHIP 47K 5% 1/10W
R270	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R271	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R272	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R273	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R274	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R275	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R276	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R277	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R278	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R279	1-216-025-00	s METAL, CHIP 100 5% 1/10W

(IF-687/687(3P) BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R280	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R281	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R282	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R283	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R284	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R285	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R286	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R287	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R288	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R289	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R290	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R291	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R292	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R293	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R298	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R299	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R300	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R301	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R309	1-216-295-00	s METAL, CHIP 0 5% 1/10W
		[for UP-D2550]
R310	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R312	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R313	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R314	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R315	1-216-053-00	s METAL, CHIP 1.5K 5% 1/10W
R316	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R317	1-216-069-00	s METAL, CHIP 6.8K 5% 1/10W
R318	1-216-017-91	s METAL, CHIP 47 5% 1/10W
S201	1-570-909-11	s SWITCH, PUSH (REFLOW TYPE)
S202	1-570-909-11	s SWITCH, PUSH (REFLOW TYPE)
S203	1-570-909-11	s SWITCH, PUSH (REFLOW TYPE)
S204	1-570-909-11	s SWITCH, PUSH (REFLOW TYPE)
S205	1-570-909-11	s SWITCH, PUSH (REFLOW TYPE)
S206	1-570-909-11	s SWITCH, PUSH (REFLOW TYPE)
S207	1-554-088-00	s SWITCH, TACTILE
X201	1-760-150-21	s RESONATOR, CERAMIC 20MHz
<hr/> ----- KY-401(3P)/401(D) BOARD		
Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8316-464-A o	MONTEED CIRCUIT BOARD, KY-401 (3P)
1pc	A-8316-188-A o	MONTEED CIRCUIT BOARD, KY-401 (D)
		[for UP-D2550]
		[for UP-D2500]
CN1	1-770-697-11	s CONNECTOR, FFC/FPC 14P
S100	1-572-595-11	s SWITCH, PUSH
S101	1-572-595-11	s SWITCH, PUSH [for UP-D2550]

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KY-422 BOARDRef. No.  
or Q'ty Part No. SP Description1pc A-8316-356-A o MOUNTED CIRCUIT BOARD, KY-422  
CN501 1-564-718-11 s CONNECTOR, 2P, MALE  
D501 8-719-041-51 s DIODE GL1EG111-----  
LE-190 BOARDRef. No.  
or Q'ty Part No. SP Description1pc A-8316-194-A o MOUNTED CIRCUIT BOARD, LE-190  
C401 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C402 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
CN401 1-770-690-11 s CONNECTOR, FFC/FPC 7P  
D401 8-719-989-10 s DIODE SLP-355B-51  
D402 8-719-033-19 s DIODE SLP-655B-51  
D403 8-719-033-19 s DIODE SLP-655B-51  
D404 8-719-033-19 s DIODE SLP-655B-51  
Q401 8-729-900-53 s TRANSISTOR DTC114EK  
Q402 8-729-900-53 s TRANSISTOR DTC114EK  
Q403 8-729-900-53 s TRANSISTOR DTC114EK  
Q404 8-729-900-53 s TRANSISTOR DTC114EK  
R402 1-216-033-00 s METAL, CHIP 220 5% 1/10W  
R404 1-216-033-00 s METAL, CHIP 220 5% 1/10W  
R406 1-216-033-00 s METAL, CHIP 220 5% 1/10W  
R408 1-216-033-00 s METAL, CHIP 220 5% 1/10W-----  
PRT-11(D) BOARDRef. No.  
or Q'ty Part No. SP Description1pc A-8316-354-A o MOUNTED CIRCUIT BOARD, PRT-11(D)  
C101 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C102 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C103 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C104 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C105 1-128-403-11 s ELECT 47uF 20% 35V  
C106 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C107 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C108 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C109 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C110 1-128-403-11 s ELECT 47uF 20% 35V  
C111 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C112 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C113 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C114 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C115 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C116 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C117 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C118 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C119 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C120 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C121 1-164-161-11 s CERAMIC, CHIP 0.0022uF 10% 100V  
C122 1-164-161-11 s CERAMIC, CHIP 0.0022uF 10% 100V  
C123 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C124 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C125 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C126 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C127 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C128 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C129 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C130 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C131 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
C132 1-126-394-11 s ELECT, CHIP 10uF 20% 16V  
C133 1-126-394-11 s ELECT, CHIP 10uF 20% 16V  
C134 1-128-397-21 s ELECT 100uF 20% 16V  
C135 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C136 1-163-235-11 s CERAMIC, CHIP 22PF 5% 50V  
C137 1-163-235-11 s CERAMIC, CHIP 22PF 5% 50V  
C138 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C139 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C140 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C142 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C143 1-128-397-21 s ELECT 100uF 20% 16V  
C144 1-128-397-21 s ELECT 100uF 20% 16V  
C145 1-104-608-11 s ELECT, CHIP 33uF 20% 6.3V  
C146 1-104-608-11 s ELECT, CHIP 33uF 20% 6.3V  
C147 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C148 1-128-397-21 s ELECT 100uF 20% 16V  
C149 1-104-608-11 s ELECT, CHIP 33uF 20% 6.3V  
C150 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C151 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C152 1-128-397-21 s ELECT 100uF 20% 16V  
C153 1-128-403-11 s ELECT 47uF 20% 35V  
C154 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C155 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C156 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
C157 1-128-403-11 s ELECT 47uF 20% 35V  
C158 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V

## (PRT-11(D) BOARD)

Ref. No. or Q'ty	Part No.	SP Description	Ref. No. or Q'ty	Part No.	SP Description
C159	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN12	1-770-160-21	s PIN, CONNECTOR 2P
C160	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN13	1-770-459-21	o CONNECTOR (PC BOARD) 2P
C161	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN14	1-770-459-21	o CONNECTOR (PC BOARD) 2P
C162	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN15	1-573-290-21	s PIN, CONNECTOR (1.5MM) (SMD) 4P
C163	1-128-393-11	s ELECT 100uF 20% 10V	CN16	1-770-160-21	s PIN, CONNECTOR 2P
C164	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CN17	1-770-160-21	s PIN, CONNECTOR 2P
C165	1-128-393-11	s ELECT 100uF 20% 10V	CN18	1-580-055-21	s PIN, CONNECTOR 2P
C166	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CNI117	1-526-660-21	o SOCKET, IC 32P
C167	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	CNI206	1-526-660-21	o SOCKET, IC 32P
C168	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	D101	8-719-200-02	s DIODE 10E-2
C169	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	D102	8-719-200-02	s DIODE 10E-2
C170	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	D104	8-719-200-02	s DIODE 10E-2
C171	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	D223	8-719-016-74	s DIODE 1SS352
C172	1-163-275-11	s CERAMIC 0.001uF 5% 50V	IC101	8-759-322-54	s IC SLA7024M
C173	1-163-275-11	s CERAMIC 0.001uF 5% 50V	IC102	8-759-926-49	s IC SN74HC245ANS
C174	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC103	8-759-926-49	s IC SN74HC245ANS
C176	1-163-275-11	s CERAMIC 0.001uF 5% 50V	IC104	8-759-926-49	s IC SN74HC245ANS
C177	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC105	8-759-157-19	s IC MB3863PF-G-BND
C178	1-128-397-21	s ELECT 100uF 20% 16V	IC106	8-759-100-95	s IC UPC324G2
C201	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC107	8-759-178-20	s IC M62354FP
C202	1-163-275-11	s CERAMIC 0.001uF 5% 50V	IC108	8-759-926-49	s IC SN74HC245ANS
C203	1-163-275-11	s CERAMIC 0.001uF 5% 50V	IC109	8-759-925-76	s IC SN74HC08NS
C204	1-163-275-11	s CERAMIC 0.001uF 5% 50V	IC110	8-759-157-19	s IC MB3863PF-G-BND
C205	1-163-275-11	s CERAMIC 0.001uF 5% 50V	IC111	8-759-926-21	s IC SN74HC161ANS
C207	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC112	8-759-254-94	s IC HD6413378F10
C208	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC113	8-759-925-80	s IC SN74HC14ANS
C209	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V	IC114	8-759-925-90	s IC SN74HC74ANS
C210	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC115	8-759-148-14	s IC UPD71055GB-3B4
C211	1-104-608-11	s ELECT, CHIP 33uF 20% 6.3V	IC117	8-759-491-63	o IC MX27C1000-PRT11DGTIV1.0
C212	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V	IC118	8-759-983-69	s IC LM358PS
C213	1-163-235-11	s CERAMIC, CHIP 22PF 5% 50V	IC119	8-759-926-11	s IC SN74HC138ANS
C216	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC201	8-759-925-76	s IC SN74HC08NS
C217	1-104-608-11	s ELECT, CHIP 33uF 20% 6.3V	IC202	8-759-925-85	s IC SN74HC32ANS
C218	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V	IC204	8-759-926-82	s IC SN74HC574ANS
C219	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V	IC206	8-759-480-89	o IC MX27C1000DC-D25G
C220	1-104-608-11	s ELECT, CHIP 33uF 20% 6.3V	IC207	8-759-479-07	s IC CXD8653Q
C221	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC208	8-759-476-50	s IC CXD8636Q
C222	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	IC209	8-759-925-72	s IC SN74HC02ANS
C223	1-128-235-11	s ELECT, CHIP 0.47uF 20% 50V	IC210	8-759-189-55	s IC CXD8865R
C224	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	L101	1-543-948-11	s BEAD, FERRITE (CHIP)
C225	1-104-608-11	s ELECT, CHIP 33uF 20% 6.3V	L103	1-543-948-11	s BEAD, FERRITE (CHIP)
C226	1-104-608-11	s ELECT, CHIP 33uF 20% 6.3V	L105	1-543-948-11	s BEAD, FERRITE (CHIP)
C227	1-163-113-00	s CERAMIC, CHIP 68PF 5% 50V	L107	1-543-948-11	s BEAD, FERRITE (CHIP)
C228	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V	L108	1-543-948-11	s BEAD, FERRITE (CHIP)
C229	1-104-608-11	s ELECT, CHIP 33uF 20% 6.3V	L109	1-543-948-11	s BEAD, FERRITE (CHIP)
C230	1-104-608-11	s ELECT, CHIP 33uF 20% 6.3V	L110	1-543-948-11	s BEAD, FERRITE (CHIP)
C231	1-164-161-11	s CERAMIC, CHIP 0.0022uF 10% 100V	L111	1-543-948-11	s BEAD, FERRITE (CHIP)
CN1	1-564-729-11	s PIN, CONNECTOR 13P	L112	1-543-948-11	s BEAD, FERRITE (CHIP)
CN2	1-564-730-11	o PIN, CONNECTOR 14P	L113	1-543-948-11	s BEAD, FERRITE (CHIP)
CN3	1-774-333-11	s CONNECTOR, FFC/FPC 21P	L114	1-543-948-11	s BEAD, FERRITE (CHIP)
CN4	1-779-937-11	s CONNECTOR, FFC/FPC 19P	L115	1-543-948-11	s BEAD, FERRITE (CHIP)
CN5	1-779-935-11	s CONNECTOR, FFC/FPC 9P	L116	1-543-948-11	s BEAD, FERRITE (CHIP)
CN6	1-770-697-11	s CONNECTOR, FFC/FPC 14P	L117	1-543-948-11	s BEAD, FERRITE (CHIP)
CN7	1-770-697-11	s CONNECTOR, FFC/FPC 14P	L118	1-543-948-11	s BEAD, FERRITE (CHIP)
CN8	1-770-705-11	s CONNECTOR, FFC/FPC 22P	L119	1-543-948-11	s BEAD, FERRITE (CHIP)
CN9	1-770-695-11	s CONNECTOR, FFC/FPC 12P	L120	1-543-948-11	s BEAD, FERRITE (CHIP)
CN10	1-774-771-11	s CONNECTOR, FFC/FPC 14P	L121	1-543-948-11	s BEAD, FERRITE (CHIP)
CN11	1-770-470-21	o CONNECTOR (PC BOARD) 6P			

## (PRT-11(D) BOARD)

Ref. No. or Q'ty	Part No.	SP Description
L122	1-543-948-11	s BEAD, FERRITE (CHIP)
L123	1-543-948-11	s BEAD, FERRITE (CHIP)
L124	1-543-948-11	s BEAD, FERRITE (CHIP)
L125	1-543-948-11	s BEAD, FERRITE (CHIP)
L127	1-543-948-11	s BEAD, FERRITE (CHIP)
L129	1-543-948-11	s BEAD, FERRITE (CHIP)
L131	1-543-948-11	s BEAD, FERRITE (CHIP)
L133	1-424-653-11	s COIL, CHOKE 10uH
L134	1-424-653-11	s COIL, CHOKE 10uH
L135	1-424-653-11	s COIL, CHOKE 10uH
L137	1-408-397-00	s INDUCTOR 1uH
L141	1-408-397-00	s INDUCTOR 1uH
L143	1-408-397-00	s INDUCTOR 1uH
L144	1-408-397-00	s INDUCTOR 1uH
L145	1-408-397-00	s INDUCTOR 1uH
L146	1-408-397-00	s INDUCTOR 1uH
L201	1-543-948-11	s BEAD, FERRITE (CHIP)
L202	1-543-948-11	s BEAD, FERRITE (CHIP)
L203	1-543-948-11	s BEAD, FERRITE (CHIP)
L204	1-543-948-11	s BEAD, FERRITE (CHIP)
L205	1-543-948-11	s BEAD, FERRITE (CHIP)
L206	1-543-948-11	s BEAD, FERRITE (CHIP)
L207	1-543-948-11	s BEAD, FERRITE (CHIP)
L208	1-543-948-11	s BEAD, FERRITE (CHIP)
L209	1-543-948-11	s BEAD, FERRITE (CHIP)
L210	1-543-948-11	s BEAD, FERRITE (CHIP)
L211	1-543-948-11	s BEAD, FERRITE (CHIP)
L212	1-543-948-11	s BEAD, FERRITE (CHIP)
L214	1-543-948-11	s BEAD, FERRITE (CHIP)
L215	1-543-948-11	s BEAD, FERRITE (CHIP)
L216	1-424-653-11	s COIL, CHOKE 10uH
L217	1-424-653-11	s COIL, CHOKE 10uH
L219	1-543-948-11	s BEAD, FERRITE (CHIP)
L221	1-543-948-11	s BEAD, FERRITE (CHIP)
L222	1-543-948-11	s BEAD, FERRITE (CHIP)
L225	1-543-948-11	s BEAD, FERRITE (CHIP)
L226	1-543-948-11	s BEAD, FERRITE (CHIP)
L229	1-543-948-11	s BEAD, FERRITE (CHIP)
L230	1-543-948-11	s BEAD, FERRITE (CHIP)
L233	1-543-948-11	s BEAD, FERRITE (CHIP)
L236	1-543-948-11	s BEAD, FERRITE (CHIP)
L240	1-543-948-11	s BEAD, FERRITE (CHIP)
L241	1-408-397-00	s INDUCTOR 1uH
L242	1-408-397-00	s INDUCTOR 1uH
L243	1-408-397-00	s INDUCTOR 1uH
L244	1-408-397-00	s INDUCTOR 1uH
L245	1-408-397-00	s INDUCTOR 1uH
Q101	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q102	8-729-140-75	s TRANSISTOR 2SD999-CLK
Q103	8-729-101-07	s TRANSISTOR 2SB798
Q104	8-729-017-80	s TRANSISTOR 2SD992-Z
Q105	8-729-114-48	s TRANSISTOR 2SB962-Z-P
Q107	8-729-114-48	s TRANSISTOR 2SB962-Z-P
Q110	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
Q111	8-729-120-28	s TRANSISTOR 2SC1623-L5L6
R101	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R102	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R103	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W

## (PRT-11(D) BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R104	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R105	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R106	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R107	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R108	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R109	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R110	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R111	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R112	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R113	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R114	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R115	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R116	1-216-089-91	s METAL, CHIP 47K 5% 1/10W
R117	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R118	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R119	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R120	1-216-373-11	s METAL 2.2 5% 2W
R121	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R122	1-216-057-00	s METAL, CHIP 2.2K 5% 1/10W
R123	1-216-373-11	s METAL 2.2 5% 2W
R124	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R125	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R126	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R127	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R128	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R129	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R130	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R131	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R132	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R133	1-216-089-91	s METAL, CHIP 47K 5% 1/10W
R134	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R135	1-216-041-00	s METAL, CHIP 470 5% 1/10W
R136	1-216-023-00	s METAL, CHIP 82 5% 1/10W
R137	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R138	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R139	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R140	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R141	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R142	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R143	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R144	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R145	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R146	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R147	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R148	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R149	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R150	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R151	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R152	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R153	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R154	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R155	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R156	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R157	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R158	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R159	1-216-037-00	s METAL, CHIP 330 5% 1/10W
R160	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R161	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R162	1-216-049-00	s METAL, CHIP 1K 5% 1/10W

## (PRT-11(D) BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R163	1-215-881-11	s METAL 15 5% 2W
R165	1-216-309-00	s METAL 5.6 5% 1/10W
R166	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R167	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R170	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R171	1-216-033-00	s METAL, CHIP 220 5% 1/10W
R172	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R173	1-216-033-00	s METAL, CHIP 220 5% 1/10W
R174	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R175	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R176	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R178	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R179	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R181	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R182	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R183	1-216-069-00	s METAL, CHIP 6.8K 5% 1/10W
R190	1-216-689-11	s METAL, CHIP 39K 0.5% 1/10W
R191	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R192	1-216-069-00	s METAL, CHIP 6.8K 5% 1/10W
R196	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R197	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R198	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R201	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R202	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R203	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R204	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R205	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R206	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R207	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R208	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R209	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R210	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R211	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R212	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R213	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R214	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R215	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R216	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R217	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R218	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R219	1-216-121-91	s METAL, CHIP 1M 5% 1/10W
R220	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R221	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R222	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R223	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R224	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R225	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R226	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R227	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R228	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R229	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R230	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R231	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R232	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R233	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R234	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R235	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R236	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R237	1-216-025-00	s METAL, CHIP 100 5% 1/10W

## (PRT-11(D) BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R238	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R239	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R240	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R241	1-216-295-00	s METAL, CHIP 0 5% 1/10W
R243	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R244	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R245	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R246	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R247	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R248	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R249	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R250	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R251	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R252	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R253	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R254	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R255	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R256	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R257	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R258	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R259	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R260	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R261	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R262	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R263	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R264	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R265	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R266	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R267	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R268	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R269	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R270	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R271	1-216-097-91	s METAL, CHIP 100K 5% 1/10W
R272	1-216-009-00	s METAL, CHIP 22 5% 1/10W
R273	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R274	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R275	1-216-065-00	s METAL, CHIP 4.7K 5% 1/10W
R276	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R277	1-216-025-00	s METAL, CHIP 100 5% 1/10W
R278	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R279	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R280	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R281	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R291	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R292	1-216-049-00	s METAL, CHIP 1K 5% 1/10W
R1000	1-215-881-11	s METAL 15 5% 2W
S1	1-570-909-11	s SWITCH, PUSH (REFLOW TYPE)
TH1	1-810-075-11	s THERMISTOR, NTC
X101	1-579-996-21	s VIBRATOR, CERAMIC 20.0MHz
X201	1-579-996-21	s VIBRATOR, CERAMIC 20.0MHz
X202	1-760-590-21	s OSCILLATOR, CRYSTAL 26.513MHz

## SE-417 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc A-8315-872-A o MOUNTED CIRCUIT BOARD, SE-417  
 C1 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
 C2 1-163-275-11 s CERAMIC 0.001uF 5% 50V  
 C3 1-163-275-11 s CERAMIC 0.001uF 5% 50V  
 C4 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C5 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C6 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C7 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C8 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
 C9 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C10 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C11 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C12 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C13 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C14 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C15 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C16 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C17 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C18 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C19 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C20 1-163-133-00 s CERAMIC, CHIP 470PF 5% 50V  
 C21 1-126-394-11 s ELECT, CHIP 10uF 20% 16V  
 C22 1-104-608-11 s ELECT, CHIP 33uF 20% 6.3V  
 C23 1-163-038-91 s CERAMIC, CHIP 0.1uF 25V  
 CN1 1-580-057-11 s PIN, CONNECTOR 4P  
 CN2 1-580-055-21 s PIN, CONNECTOR 2P  
 CN3 1-569-775-21 s PIN, CONNECTOR 5P  
 CN4 1-580-056-21 o PIN, CONNECTOR 3P  
 CN5 1-580-056-21 o PIN, CONNECTOR 3P  
 CN6 1-569-775-21 s PIN, CONNECTOR 5P  
 CN7 1-770-705-11 s CONNECTOR, FFC/FPC 22P  
 IC1 8-759-354-27 s IC ST24C01FM6TR  
 IC2 8-759-926-49 s IC SN74HC245ANS  
 IC5 8-759-100-95 s IC UPC324G2  
 IC6 8-759-100-95 s IC UPC324G2  
 IC7 8-759-381-55 s IC UPC339G2-E2  
 JR1 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR2 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR3 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR4 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR5 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR6 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR7 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR8 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR9 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR10 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR11 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR12 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR13 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR14 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR15 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR16 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR17 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR18 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR19 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR20 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR21 1-216-295-00 s METAL, CHIP 0 5% 1/10W

## (SE-417 BOARD)

Ref. No.  
or Q'ty Part No. SP Description

JR22 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR23 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR24 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR25 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR26 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR27 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR28 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR29 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR30 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR31 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR32 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR33 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR34 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR35 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR36 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR37 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR38 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR39 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR40 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR41 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR42 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR43 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR44 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR45 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR46 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR47 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR48 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR49 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR50 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR51 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR52 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR53 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR54 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR55 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR56 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR57 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 JR58 1-216-295-00 s METAL, CHIP 0 5% 1/10W  
 PH1 8-749-923-97 s PHOTO INTERRUPTER GP2S40  
 Q1 8-729-120-28 s TRANSISTOR 2SC1623-L5L6  
 Q2 8-729-120-28 s TRANSISTOR 2SC1623-L5L6  
 Q3 8-729-120-28 s TRANSISTOR 2SC1623-L5L6  
 Q4 8-729-120-28 s TRANSISTOR 2SC1623-L5L6  
 R1 1-216-029-00 s METAL, CHIP 150 5% 1/10W  
 R2 1-216-013-00 s METAL, CHIP 33 5% 1/10W  
 R3 1-216-013-00 s METAL, CHIP 33 5% 1/10W  
 R4 1-216-013-00 s METAL, CHIP 33 5% 1/10W  
 R5 1-216-073-00 s METAL, CHIP 10K 5% 1/10W  
 R6 1-216-013-00 s METAL, CHIP 33 5% 1/10W  
 R7 1-216-029-00 s METAL, CHIP 150 5% 1/10W  
 R8 1-216-013-00 s METAL, CHIP 33 5% 1/10W  
 R9 1-216-029-00 s METAL, CHIP 150 5% 1/10W  
 R10 1-216-073-00 s METAL, CHIP 10K 5% 1/10W  
 R11 1-216-073-00 s METAL, CHIP 10K 5% 1/10W  
 R12 1-216-073-00 s METAL, CHIP 10K 5% 1/10W  
 R13 1-216-029-00 s METAL, CHIP 150 5% 1/10W  
 R14 1-216-073-00 s METAL, CHIP 10K 5% 1/10W  
 R15 1-216-073-00 s METAL, CHIP 10K 5% 1/10W

## (SE-417 BOARD)

Ref. No.	Part No.	SP Description
R16	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R17	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R18	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R19	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R20	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R21	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R22	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R23	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R24	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R25	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R26	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R27	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R28	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R29	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R30	1-216-105-91	s METAL, CHIP 220K 5% 1/10W
R31	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R32	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R33	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R34	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R35	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R36	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R37	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R38	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R39	1-216-081-00	s METAL, CHIP 22K 5% 1/10W
R40	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R41	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R42	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R43	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R44	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R45	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R46	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R47	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R48	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R49	1-216-295-00	s METAL, CHIP 0 5% 1/10W

## SE-418 BOARD

Ref. No.	Part No.	SP Description
1pc	A-8315-874-A o	OUNTED CIRCUIT BOARD, SE-418
C101	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C102	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C103	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C104	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C105	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C106	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C107	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C108	1-104-608-11	s ELECT, CHIP 33uF 20% 6.3V
C109	1-163-038-91	s CERAMIC, CHIP 0.1uF 25V
CN101	1-691-550-11	s CONNECTOR (1.5MM) (SMD) 3P MALE
CN102	1-691-550-11	s CONNECTOR (1.5MM) (SMD) 3P MALE
CN103	1-573-768-21	s CONNECTOR (1.5MM) (SMD) 5P MALE
CN104	1-573-768-21	s CONNECTOR (1.5MM) (SMD) 5P MALE
CN105	1-778-276-11	s CONNECTOR, FFC/FPC 12P
IC101	8-759-926-49	s IC SN74HC245ANS
JR101	1-216-295-00	s METAL, CHIP 0 5% 1/10W
JR102	1-216-295-00	s METAL, CHIP 0 5% 1/10W
JR103	1-216-295-00	s METAL, CHIP 0 5% 1/10W
JR104	1-216-295-00	s METAL, CHIP 0 5% 1/10W
JR105	1-216-295-00	s METAL, CHIP 0 5% 1/10W
JR106	1-216-295-00	s METAL, CHIP 0 5% 1/10W
JR107	1-216-295-00	s METAL, CHIP 0 5% 1/10W
JR108	1-216-295-00	s METAL, CHIP 0 5% 1/10W
JR109	1-216-295-00	s METAL, CHIP 0 5% 1/10W
PH101	8-749-010-69	s PHOTO INTERRUPTER GP158V
Q101	8-729-101-07	s TRANSISTOR 2SB798
Q102	8-729-901-00	s TRANSISTOR DTC124EK
R101	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R102	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R103	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R104	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R105	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R106	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R107	1-216-029-00	s METAL, CHIP 150 5% 1/10W
R108	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R109	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R110	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R111	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R112	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R113	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R114	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R115	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R116	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R117	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R118	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R119	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R120	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R121	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R122	1-216-073-00	s METAL, CHIP 10K 5% 1/10W
R123	1-216-049-00	s METAL, CHIP 1K 5% 1/10W

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SE-419 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-667-005-11 o PRINTED CIRCUIT BOARD, SE-419  
CN150 1-573-290-21 s PIN, CONNECTOR (1.5MM) (SMD) 4P  
PH150 8-719-052-69 s DIODE RPI-352  
S150 1-571-958-11 s SWITCH, PUSH (1 KEY)

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SE-424 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-984-11 o PRINTED CIRCUIT BOARD, SE-424  
CN350 1-580-056-21 o PIN, CONNECTOR 3P  
Q350 8-729-930-95 s PHOTO TRANSISTOR PT480F  
Q351 8-729-930-95 s PHOTO TRANSISTOR PT480F

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SE-420 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-667-006-11 o PRINTED CIRCUIT BOARD, SE-420  
CN201 1-573-768-21 s CONNECTOR (1.5MM) (SMD) 5P MALE  
PH201 8-719-052-69 s DIODE RPI-352  
PH202 8-719-052-69 s DIODE RPI-352

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SE-425 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-985-11 o PRINTED CIRCUIT BOARD, SE-425  
CN401 1-580-056-21 o PIN, CONNECTOR 3P  
CN402 1-569-775-21 s PIN, CONNECTOR 5P  
PH401 8-749-923-97 s PHOTO INTERRUPTER GP2S40

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SE-422 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-667-007-11 o PRINTED CIRCUIT BOARD, SE-422  
CN250 1-580-056-21 o PIN, CONNECTOR 3P  
PH250 8-749-923-97 s PHOTO INTERRUPTER GP2S40

-----  
SE-426 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-986-11 o PRINTED CIRCUIT BOARD, SE-426  
CN450 1-564-707-11 o CONNECTOR, 5P, MALE  
PH450 8-749-010-50 s PHOTO INTERRUPTER RPI-5100  
PH451 8-719-052-69 s DIODE RPI-352

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SE-423 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-983-11 o PRINTED CIRCUIT BOARD, SE-423  
CN301 1-580-056-21 o PIN, CONNECTOR 3P  
D301 8-719-938-07 s DIODE GL480  
D302 8-719-938-07 s DIODE GL480

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SE-427 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-987-11 o PRINTED CIRCUIT BOARD, SE-427  
CN501 1-691-550-11 s CONNECTOR (1.5MM) (SMD) 3P MALE  
PH501 8-749-010-50 s PHOTO INTERRUPTER RPI-5100

-----  
SE-428 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-988-11 o PRINTED CIRCUIT BOARD, SE-428  
CN550 1-580-056-21 o PIN, CONNECTOR 3P  
PH550 8-719-939-05 s PHOTointERRUPTER GP-1S54

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SU-38 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-667-001-11 o PRINTED CIRCUIT BOARD, SU-38  
CN850 1-770-160-21 s PIN, CONNECTOR 2P  
M850 1-541-309-11 s MOTOR, L (RF-370C)

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SE-429 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-997-11 o PRINTED CIRCUIT BOARD, SE-429  
CN601 1-569-775-21 s PIN, CONNECTOR 5P  
PH601 8-719-052-69 s DIODE RPI-352  
PH602 8-719-052-69 s DIODE RPI-352

-----  
SU-39 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-667-002-11 o PRINTED CIRCUIT BOARD, SU-39  
CN901 1-564-718-11 s CONNECTOR, 2P, MALE  
M901 1-698-323-11 s MOTOR, DC

-----  
SE-430 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-998-11 o PRINTED CIRCUIT BOARD, SE-430  
CN650 1-580-057-11 s PIN, CONNECTOR 4P  
CN651 1-778-273-11 s CONNECTOR, 15P FEMALE

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SU-36 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-666-999-11 o PRINTED CIRCUIT BOARD, SU-36  
CN750 1-770-160-21 s PIN, CONNECTOR 2P  
M750 1-541-309-11 s MOTOR, L (RF-370C)

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SU-37 BOARD

Ref. No.  
or Q'ty Part No. SP Description

1pc 1-667-000-11 o PRINTED CIRCUIT BOARD, SU-37  
CN801 1-770-160-21 s PIN, CONNECTOR 2P  
M801 1-541-309-11 s MOTOR, L (RF-370C)

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FRAME

Ref. No.  
or Q'ty Part No. SP Description

1pc  $\Delta$  1-468-250-13 s SWITCHIN REGULATOR  
 $\Delta$  1-576-232-41 s FUSE 5A 250V  
[for SWITCHING REGULATOR]  
1pc 1-500-474-11 s HEAD, THERMAL (LV6103)  
2pcs 1-541-684-51 s MOTOR, DC  
1pc 1-692-960-11 s SWITCH, PUSH (1 KEY)  
1pc 1-698-555-21 s MOTOR, STEPPING(PM42S-048-SNA6)  
1pc 1-763-007-11 s FAN, DC  
1pc 1-782-729-11 s WIRE, FLAT (7-CORE)[for J,UC]  
1pc 1-782-906-11 s WIRE, FLAT (WITH SHIELD) (7-CORE)  
[for CE]  
1pc 1-782-730-11 s WIRE, FLAT (14-CORE)  
1pc 1-782-734-11 s WIRE, FLAT (14-CORE)  
1pc 1-782-735-11 s WIRE, FLAT (22-CORE)  
1pc 1-782-736-11 s WIRE, FLAT (12-CORE)  
1pc 1-782-738-11 s WIRE, FLAT (21-CORE)  
1pc 1-782-739-11 s WIRE, FLAT (19-CORE)

TO CN001/PRT-11  
1pc 1-562-655-11 o SOCKET, CONNECTOR 13P  
1pc 1-562-643-11 o CONTACT, FEMALE  
TO CN002/SWITCHING REGULATOR  
1pc 1-562-655-11 o SOCKET, CONNECTOR 13P  
1pc 1-562-643-11 o CONTACT, FEMALE  
TO CN004/SWITCHING REGULATOR  
1pc 1-562-647-11 o SOCKET, CONNECTOR 5P  
1pc 1-562-643-11 o CONTACT, FEMALE  
TO CN103/IF-687  
1pc 1-562-644-11 s SOCKET, CONNECTOR 2P  
1pc 1-562-643-11 o CONTACT, FEMALE  
  
TO CN203/IF-687  
1pc 1-562-647-11 o SOCKET, CONNECTOR 5P  
1pc 1-562-643-11 o CONTACT, FEMALE  
TO CN501/KY-422  
1pc 1-562-644-11 s SOCKET, CONNECTOR 2P  
1pc 1-562-643-11 o CONTACT, FEMALE

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SUPPLIED ACCESSORIES

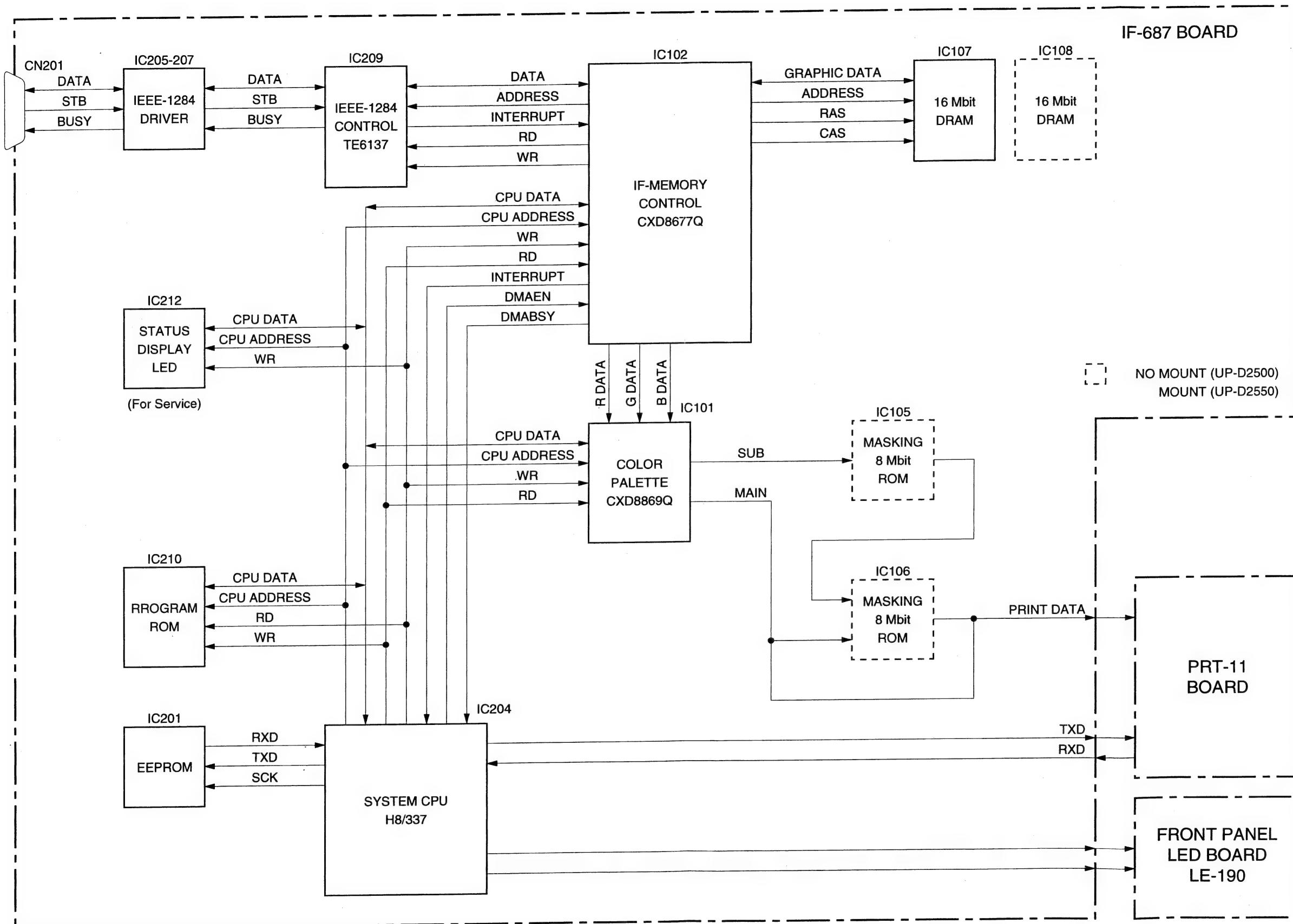
Ref. No.  
or Q'ty Part No. SP Description

1pc A-8278-738-A s STD, TRAY ASSY  
1pc  $\Delta$  1-534-827-14 s CORD, POWER[for UC]  
1pc  $\Delta$  1-551-631-22 s CORD, POWER[for CE]  
1pc  $\Delta$  1-575-181-11 s CORD, POWER[for J]  
1pc  $\Delta$  1-750-686-11 s CONNECTOR, CONVERSION (3P-2P)  
[for J]  
1pc 3-609-528-01 o TRAY, PAPER EJECT  
1pc 3-860-609-01 s MANUAL, INSTRUCTION[for J]  
1pc 3-860-609-11 s MANUAL, INSTRUCTION[for UC]  
1pc 3-860-609-21 s MANUAL, INSTRUCTION[for CE]

**SECTION 9**  
**BLOCK DIAGRAM**

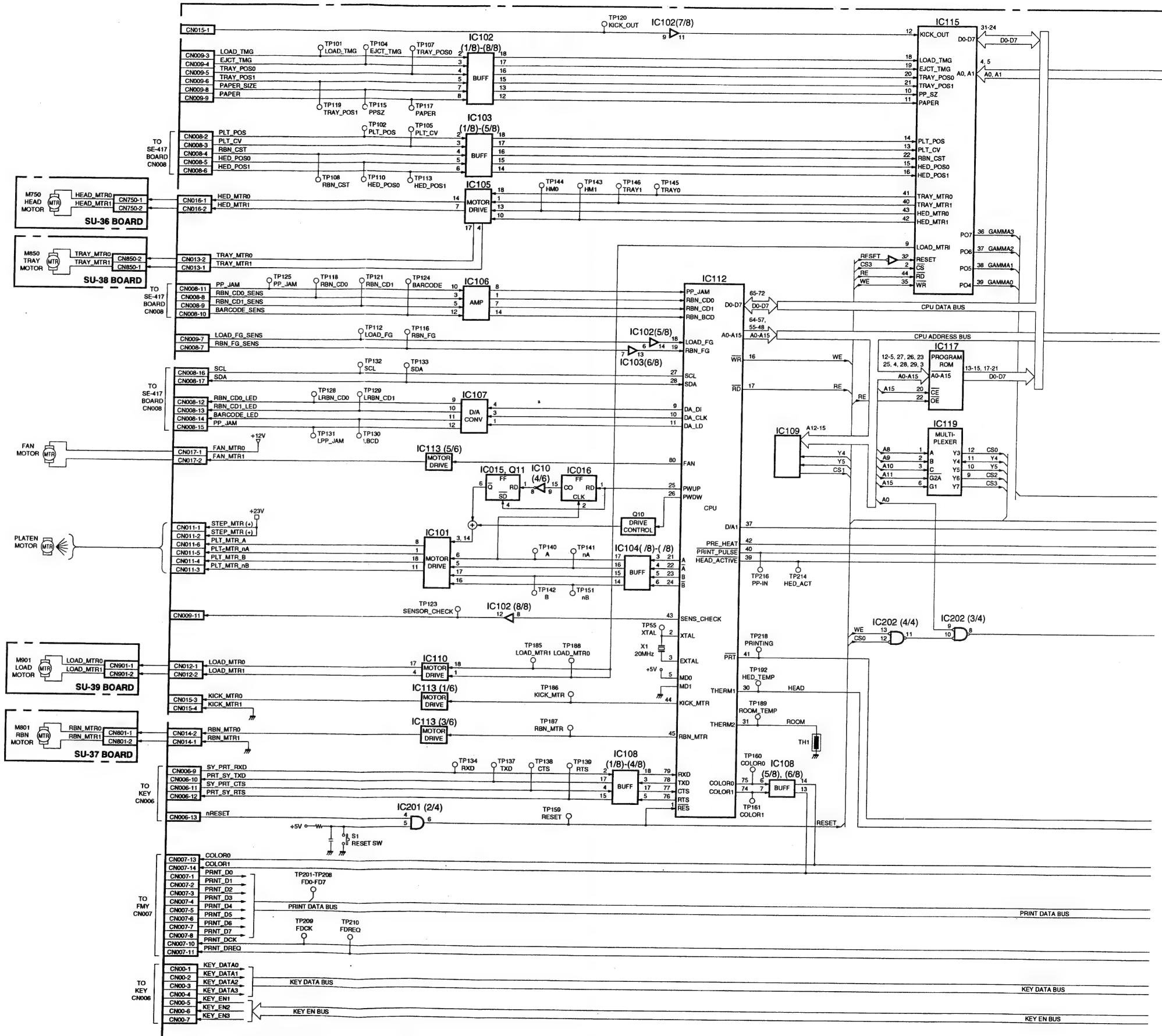
**OVERALL**      **OVERALL**

**OVERALL**

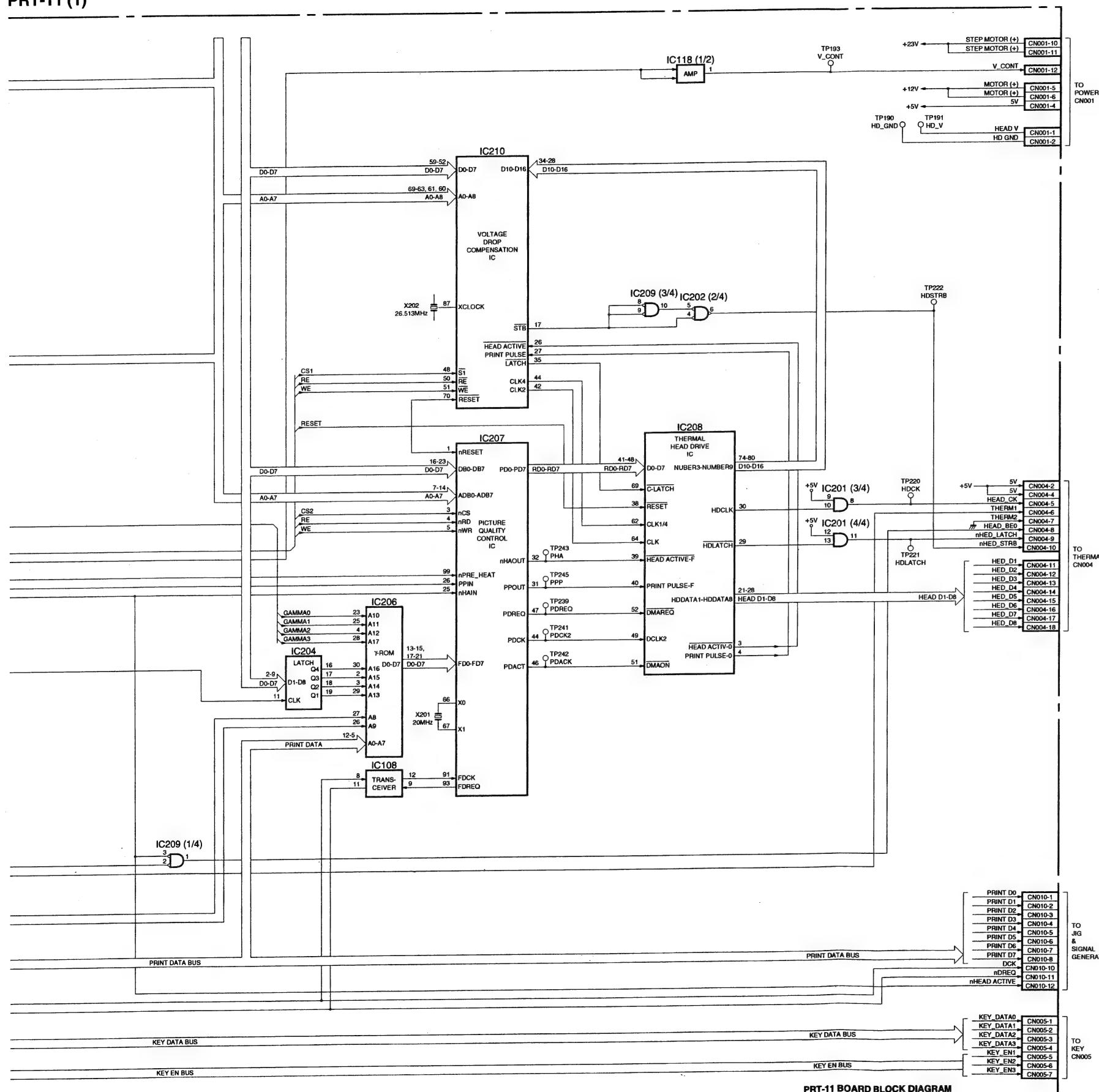


**PRT-11 (1) PRT-11 (1)**

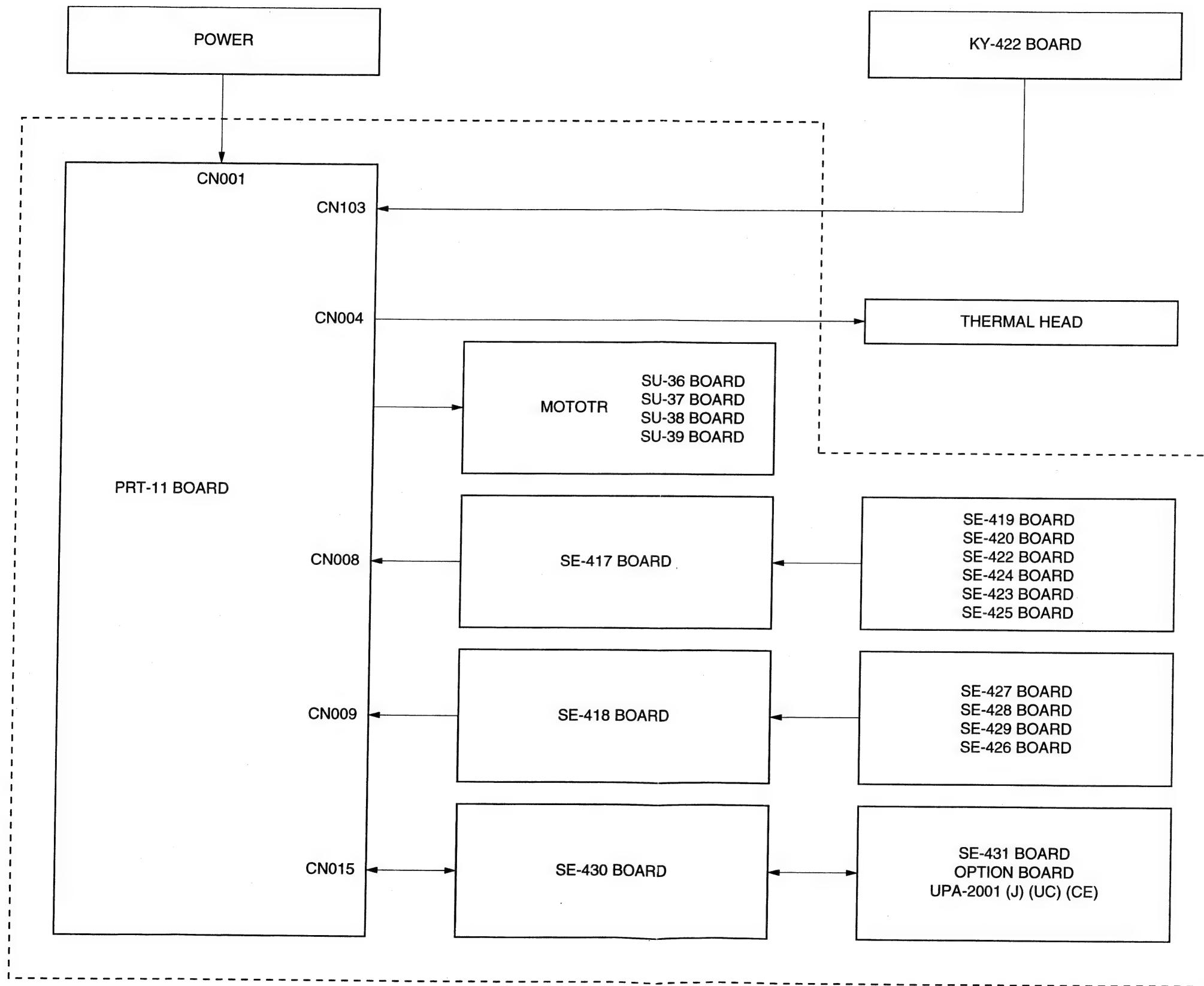
## PRT-11 (1)



PRT-11 (1)



PRT-11 (2)



## SECTION 10

### PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

プリント図、回路図共通ノート  
(他に必要なノートは各ブロックに記載してあります。)

#### 【回路図ノート】

- チップ交換時の注意  
取り外した部品は再使用せず、未使用の部品をご使用ください。  
タンタルコンデンサのマイナス側は熱に弱いため、注意してください。
- 抵抗で指示のないものは1/4 W。(チップ抵抗は1/10 W。)  
単位はすべてΩ。  
kΩ : 1000 Ω, MΩ : 1000 kΩ
- ケミコン、タンタルを除くコンデンサで、耐圧50 V以下のものは、  
その耐圧を省略。単位はすべてμF。(PはpF。)
- 可変抵抗と半固定抵抗で、B特性の表示を省略。
- WWは不燃性抵抗。
- WW~はヒューズ抵抗。
- は調整名称。

△印の部品は、安全性を維持するために、重要な  
部品です。従って交換時は、必ず指定の部品を  
使用して下さい。

お願い  
図面番号で部品を指定するときは基板名又はブロックを  
併せて指定して下さい。

THIS NOTE IS COMMON FOR PRINTED WIRING  
BOARDS AND SCHEMATIC DIAGRAMS.

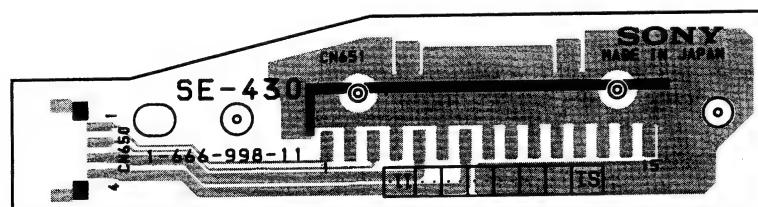
(In addition to this, the necessary note is printed in  
each block.)

#### For Schematic Diagrams.

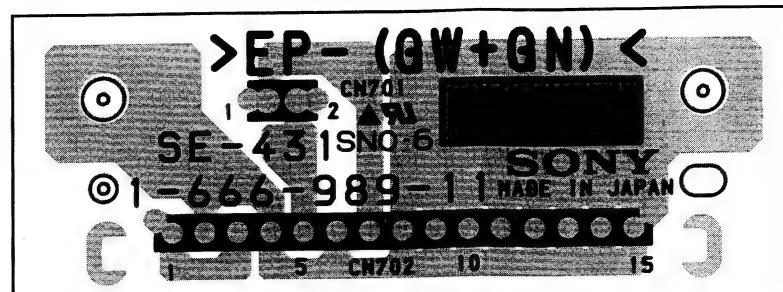
- Caution when replacing chip parts.  
New parts must be attached after removal of chip.  
Be careful not to heat the minus side of tantalum capacitor,  
because it is damaged by the heat.
- All resistors are in ohms, 1/10W unless otherwise noted.  
kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted.  
pF: μμF.  
50V or less are not indicated except for electrolytics and  
tantalums.
- All variable and adjustable resistors have characteristic curve B,  
unless otherwise noted.
- WW : nonflammable resistor.
- WW~ : fusible resistor.

**Note:** The components identified by mark △ are  
critical for safety. Replace only with part  
number specified.

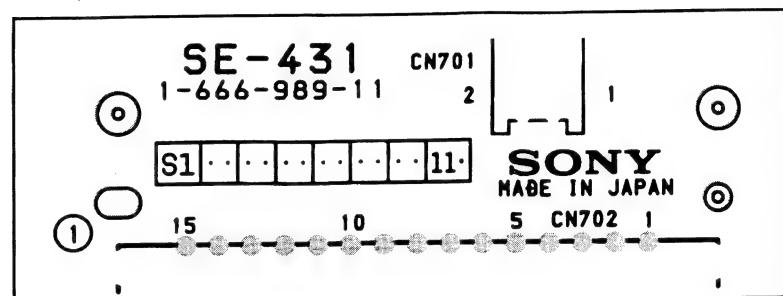
**Note:** Les composants identifiés par une marque △  
sont d'une importance critique pour la  
sécurité. Ne les remplacer que par des pièces  
de numéro spécifié.



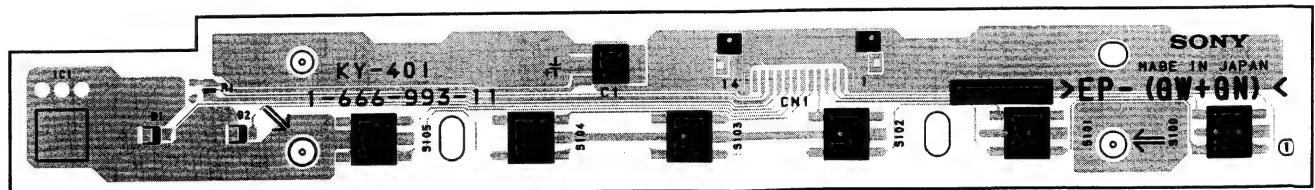
SE-430 A SIDE  
1-666-998-11



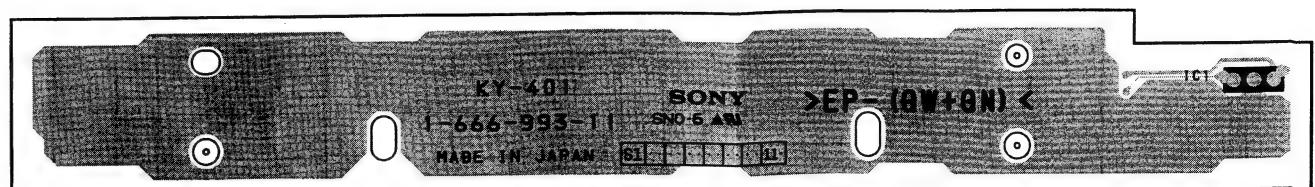
SE-431 A SIDE  
1-666-989-11



SE-431 B SIDE  
1-666-989-11



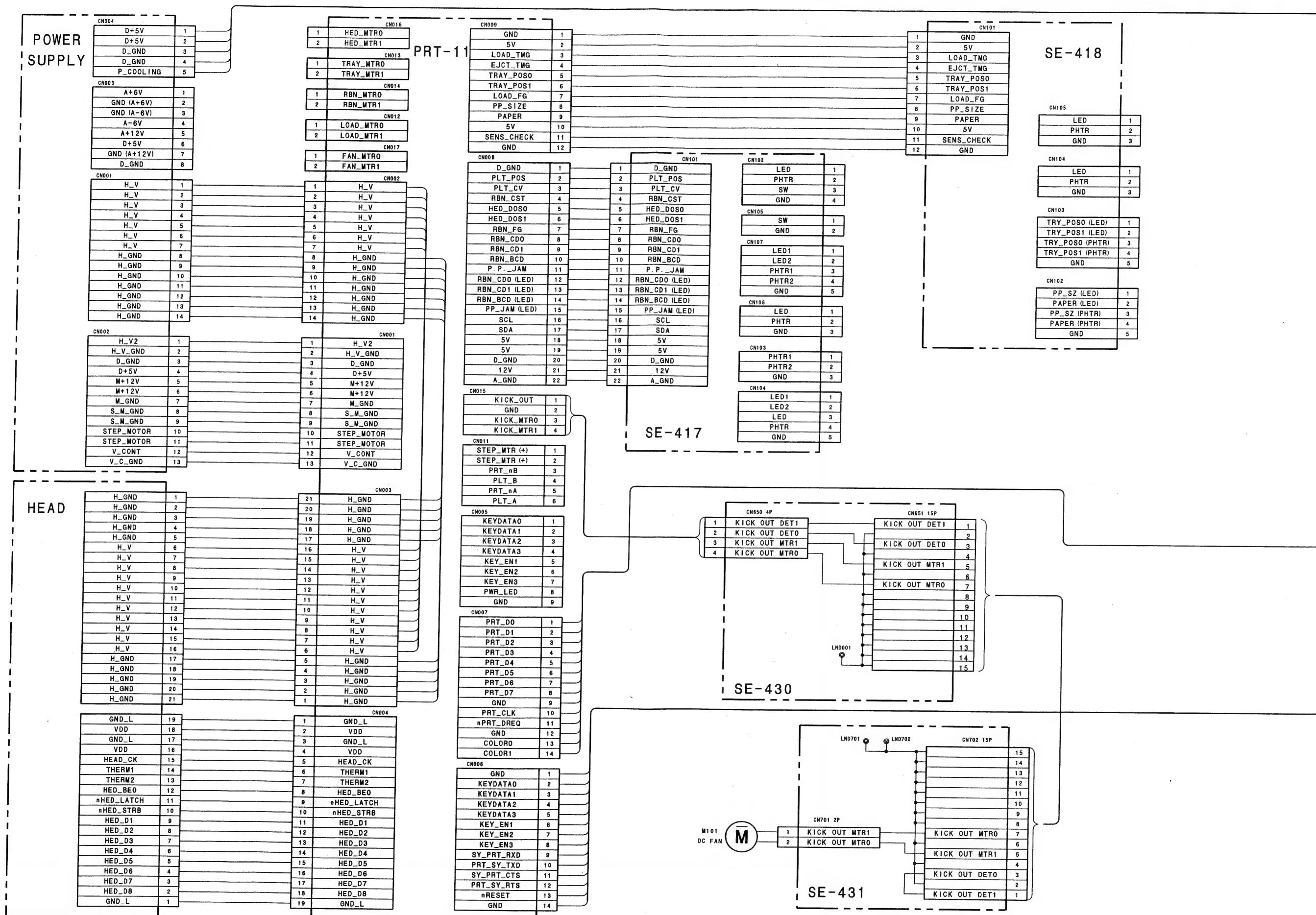
KY-401 A SIDE  
1-666-993-11

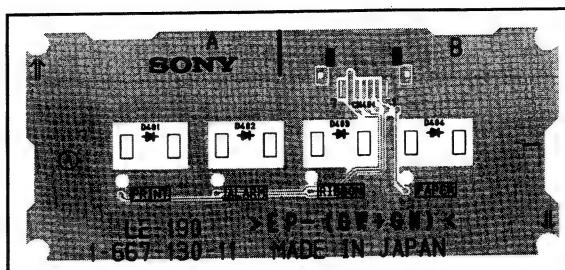
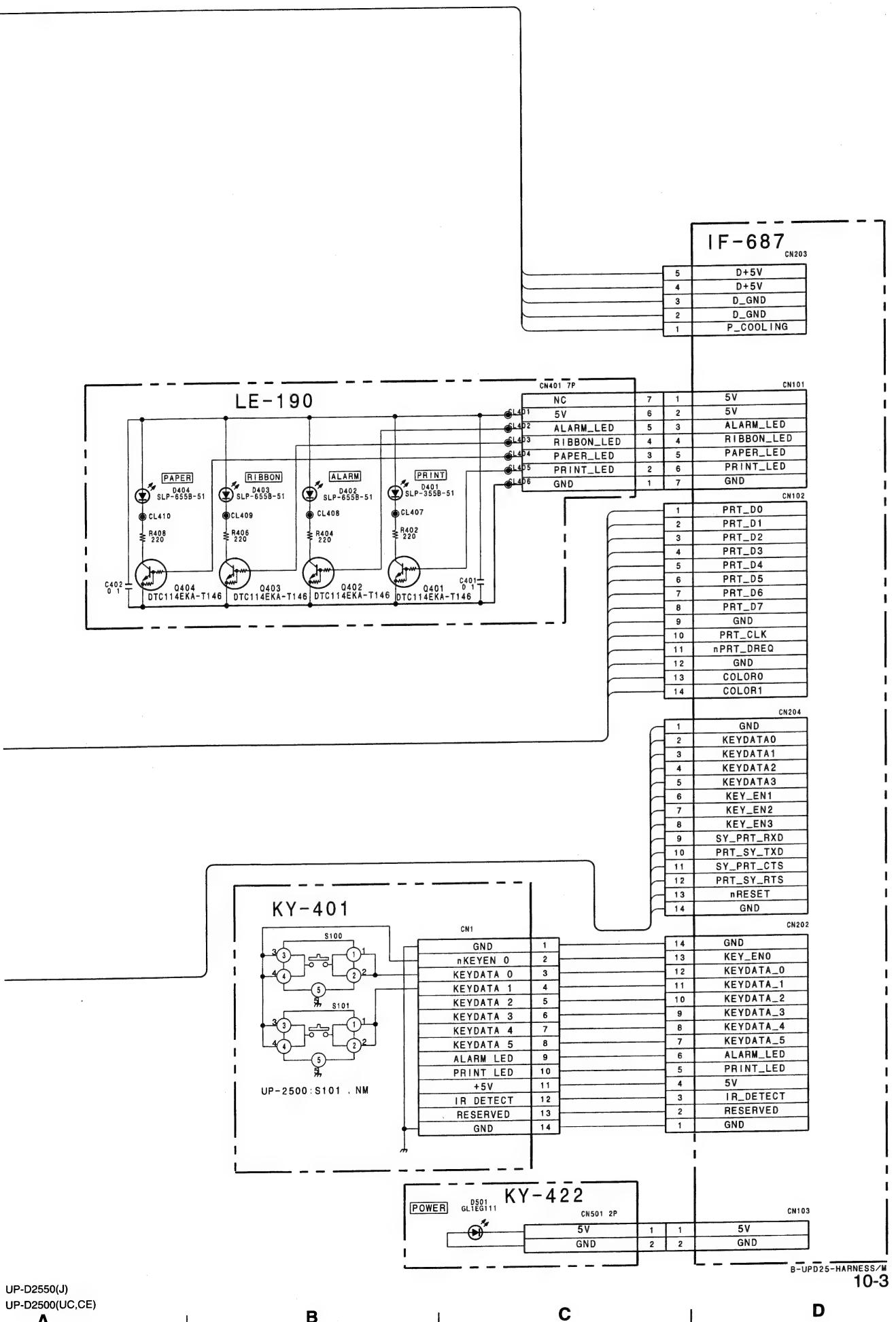


KY-401 B SIDE  
1-666-993-11

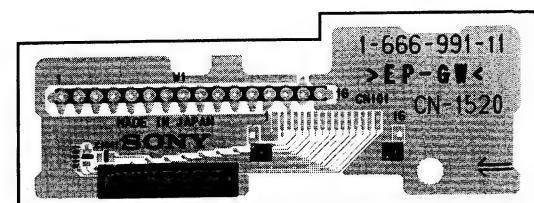
## CN-1520, KY-422, LE-190, HARNESS

## CN-1520, KY-422, LE-190, HARNESS

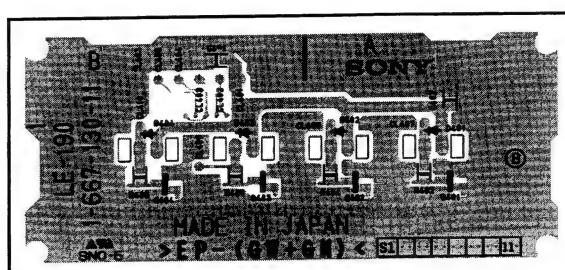




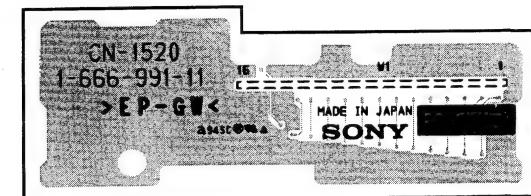
**LE-190 A SIDE**  
1-667-130-11



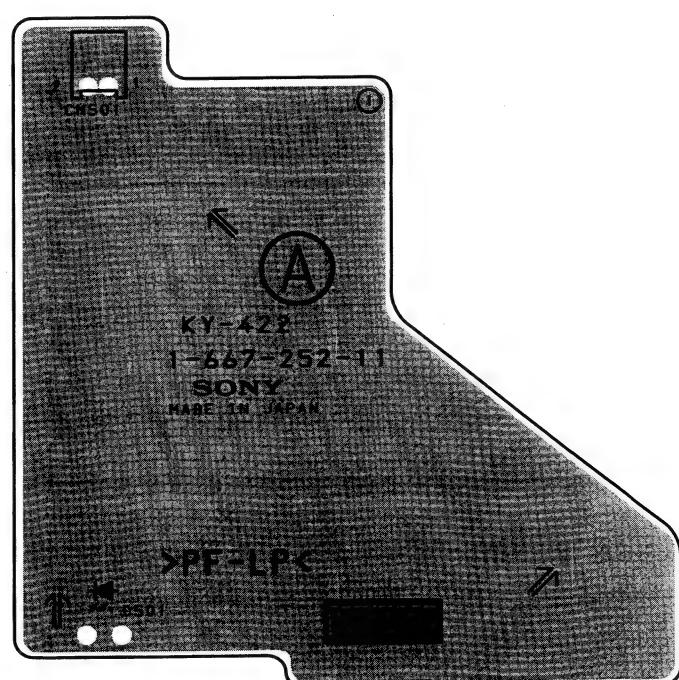
**CN-1520 A SIDE**  
1-666-991-11



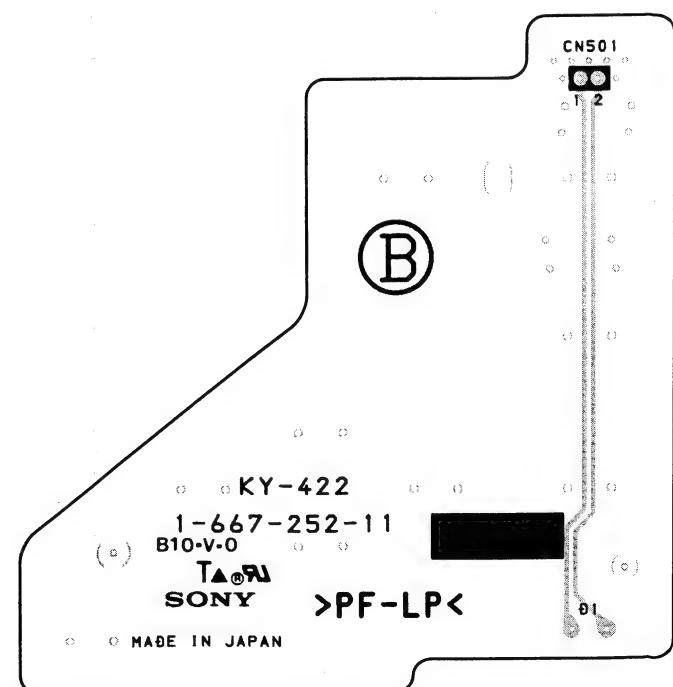
**LE-190 B SIDE**  
1-667-130-11



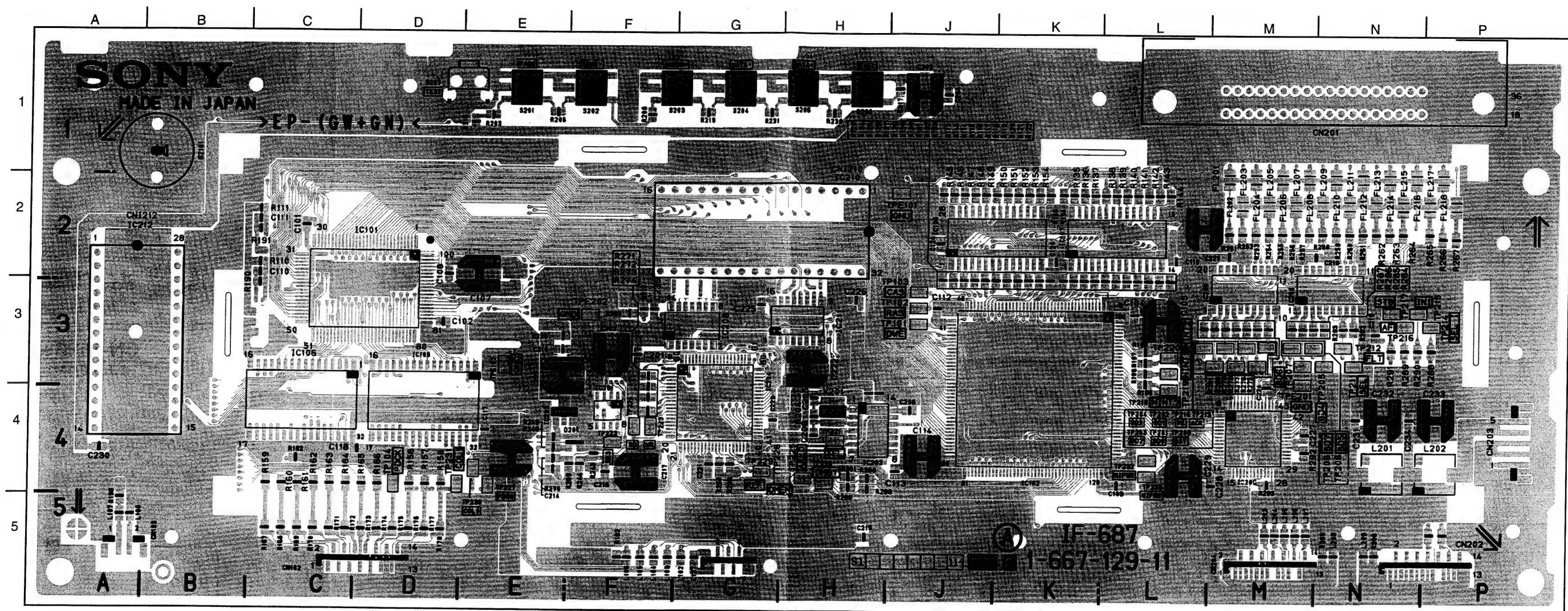
**CN-1520 B SIDE**  
1-666-991-11



**KY-422 A SIDE**  
1-667-252-11



**KY-422 B SIDE**  
1-667-252-11

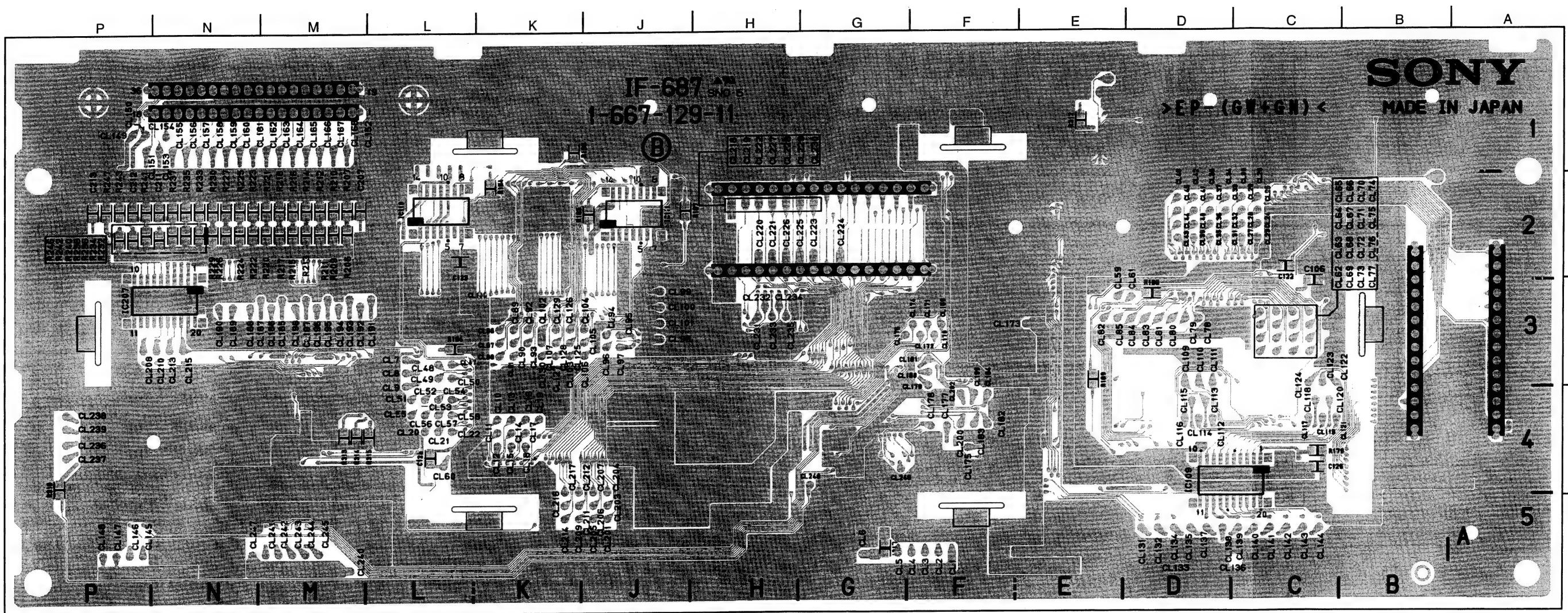


IF-687 A SIDE  
1-667-129-11

IF-687

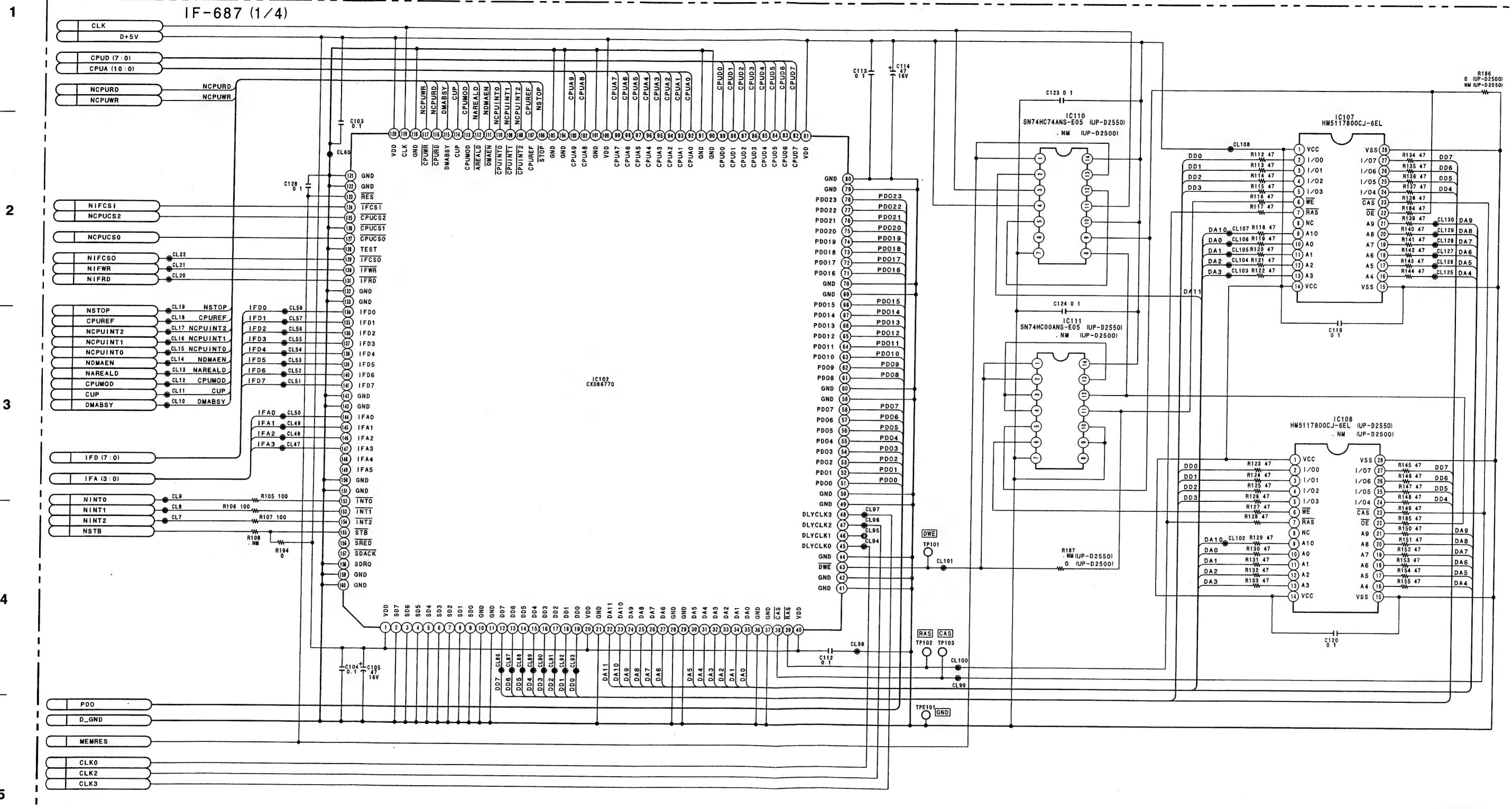
BZ101	B-1	IC201	F-4
		IC202	H-4
CN101	.G-5	IC203	E-4
CN102	C-5	IC204	G-3
CN103	B-5	IC205	M-3
CN201	N-1	IC206	M-3
CN202	P-5	*IC207	P-3
CN203	P-4	IC208	G-3
CN204	M-5	IC209	M-4
CNI210	H-2	IC210	H-2
CNI212	A-2	IC211	H-3
		IC212	A-2
D201	F-4		
		S201	E-1
IC101	D-2	S202	F-1
IC102	K-4	S203	F-1
IC105	D-3	S204	G-1
IC106	C-3	S205	H-1
IC107	K-2	S206	H-1
IC108	J-2	S207	D-1
*IC109	D-4		
*IC110	L-2	X201	H-4
*IC111	J-2		

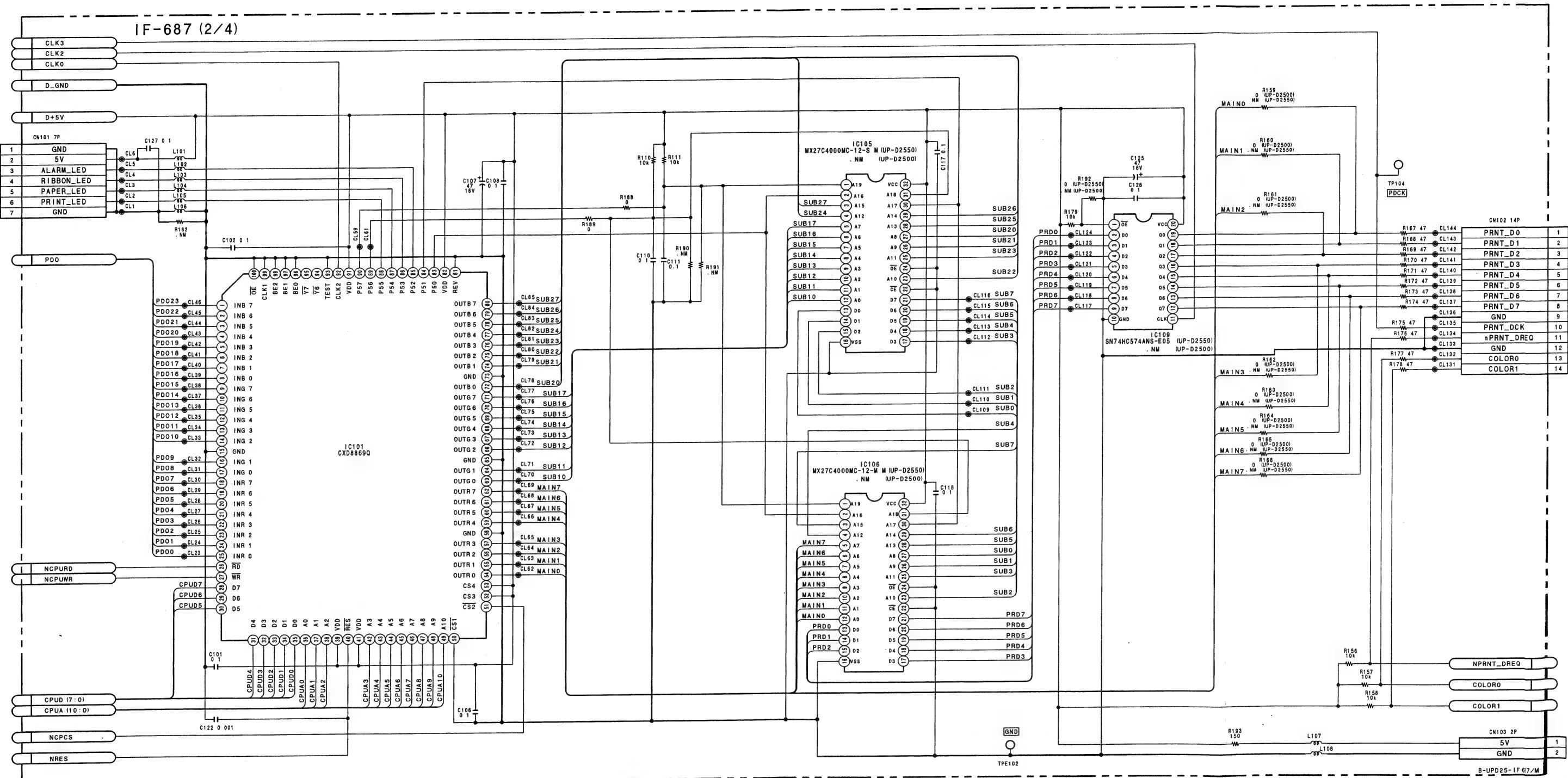
\*: B SIDE



**IF-687 B SIDE**  
1-667-129-11

## DIGITAL VIDEO



UP-D2550(J)  
UP-D2500(UC,CE)

A

B

C

D

10-7

10-7

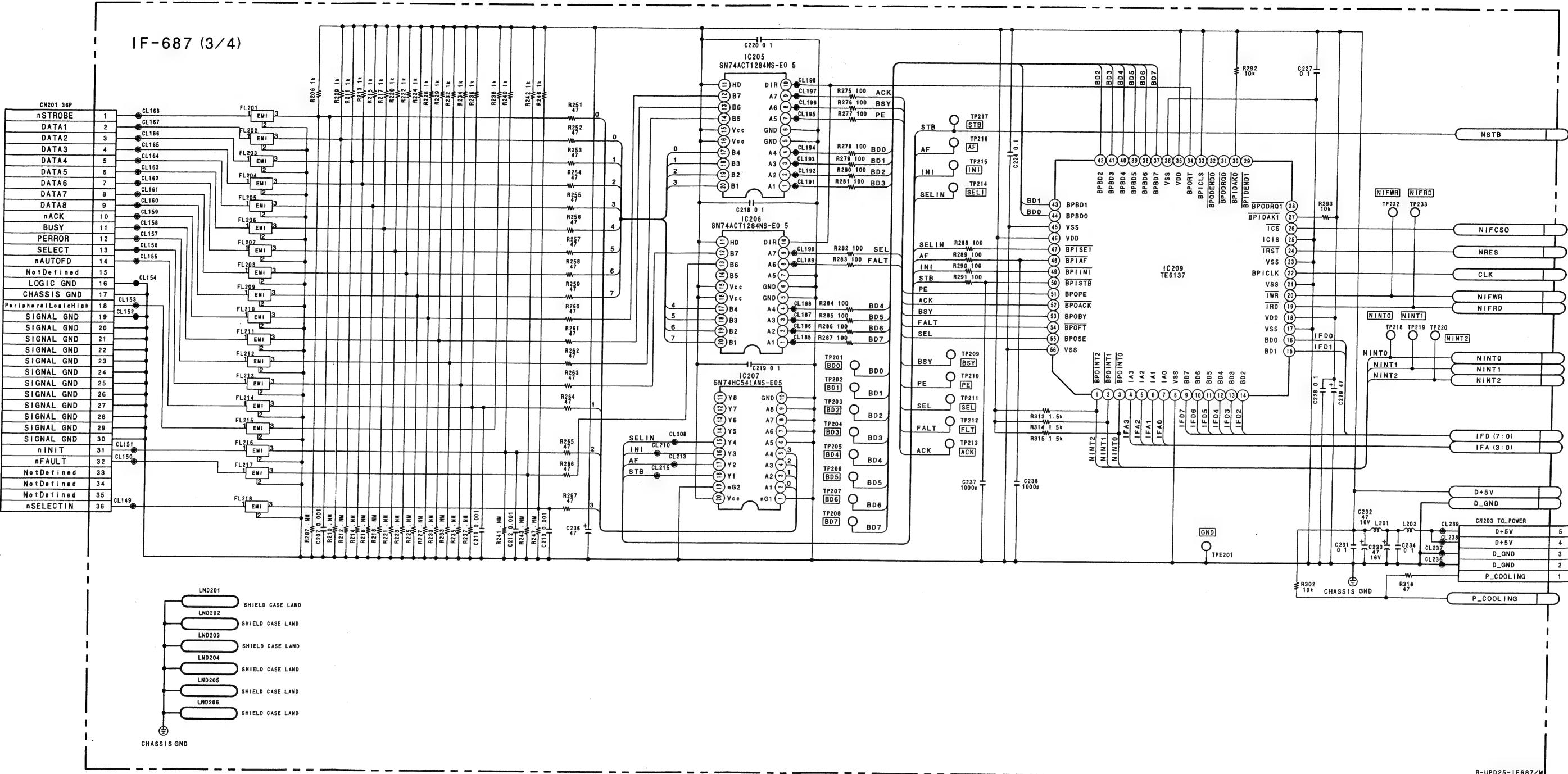
E

F

G

H

1 F-687 (3/4)



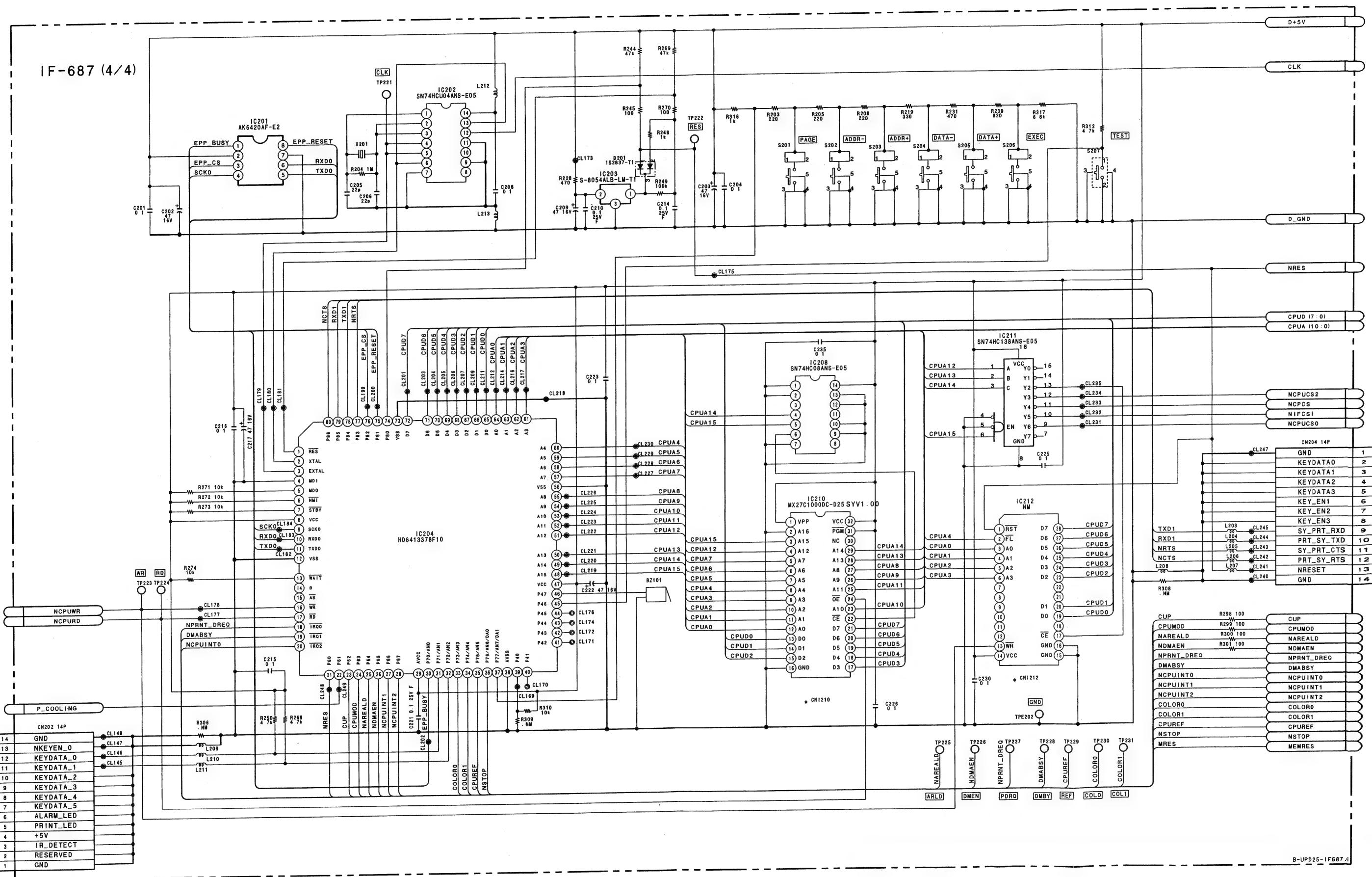
B-UPD25-1E687/M

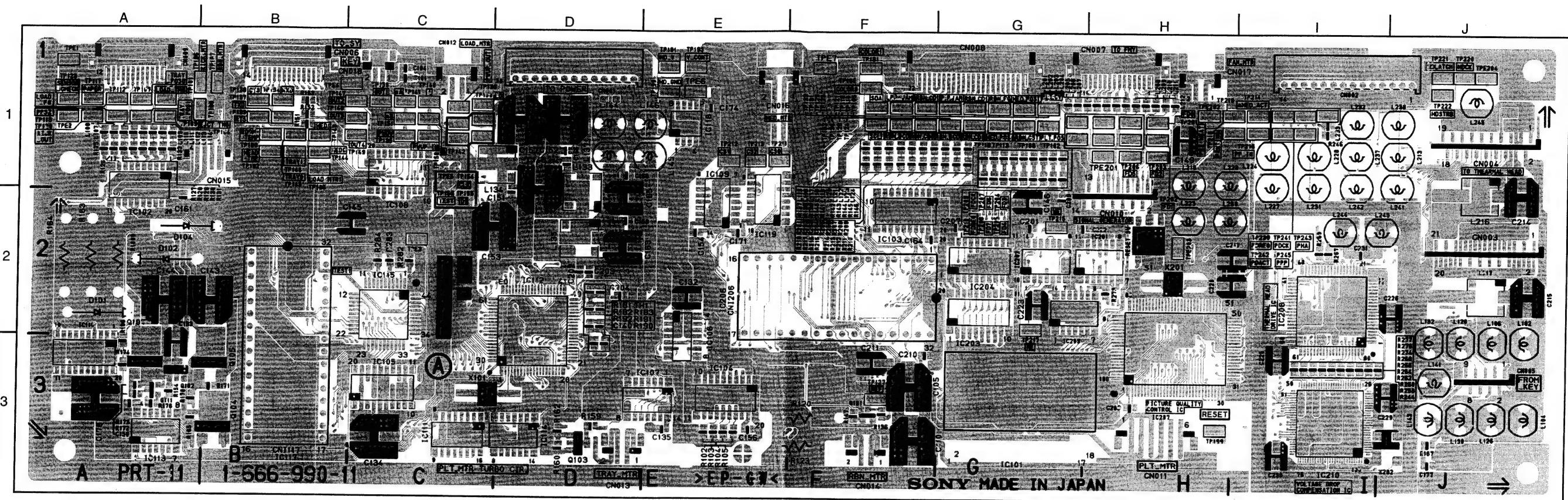
10-8

10-8

UP-D2550(J)  
UP-D2500(UC,CE)

4



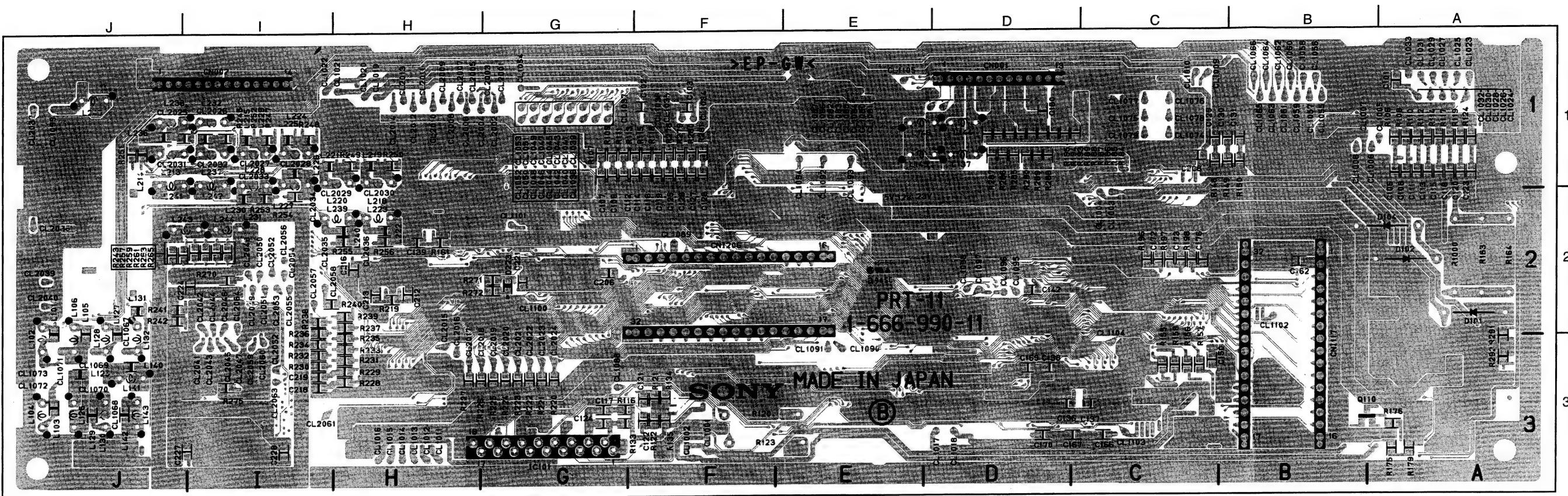


PRT-11 A SIDE  
1-666-990-11

PRT-11

CN1	D-1	IC109	E-1
CN2	I-1	IC110	A-2
CN3	J-2	IC111	C-3
CN4	J-1	IC112	D-2
CN5	J-3	IC113	A-3
CN6	B-1	IC114	D-3
CN7	H-1	IC115	C-2
CN8	G-1	IC117	B-3
CN9	A-1	IC118	E-1
CN10	H-2	IC119	E-2
CN11	H-3	IC201	H-2
CN12	C-1	IC202	G-2
CN13	D-3	IC203	G-1
CN14	F-3	IC204	G-2
CN15	B-1	IC206	E-2
CN16	E-1	IC207	H-2
CN17	I-1	IC208	I-2
CN18	B-1	IC209	G-2
CN101	E-1	IC210	I-3
CN1520	E-1		
CN1117	B-3	Q101	F-3
CN1206	E-2	Q102	A-3
		Q103	D-3
D101	A-2	Q104	B-3
D102	A-2	Q105	B-3
D104	A-2	Q107	A-2
*D223	G-2	*Q110	B-3
		Q111	A-3
IC101	G-3		
IC102	A-2	S1	H-2
IC103	F-2		
IC104	E-3	TH1	D-2
IC105	C-3		
IC106	E-2	X101	C-3
IC107	E-3	X201	H-2
IC108	C-2	X202	J-3

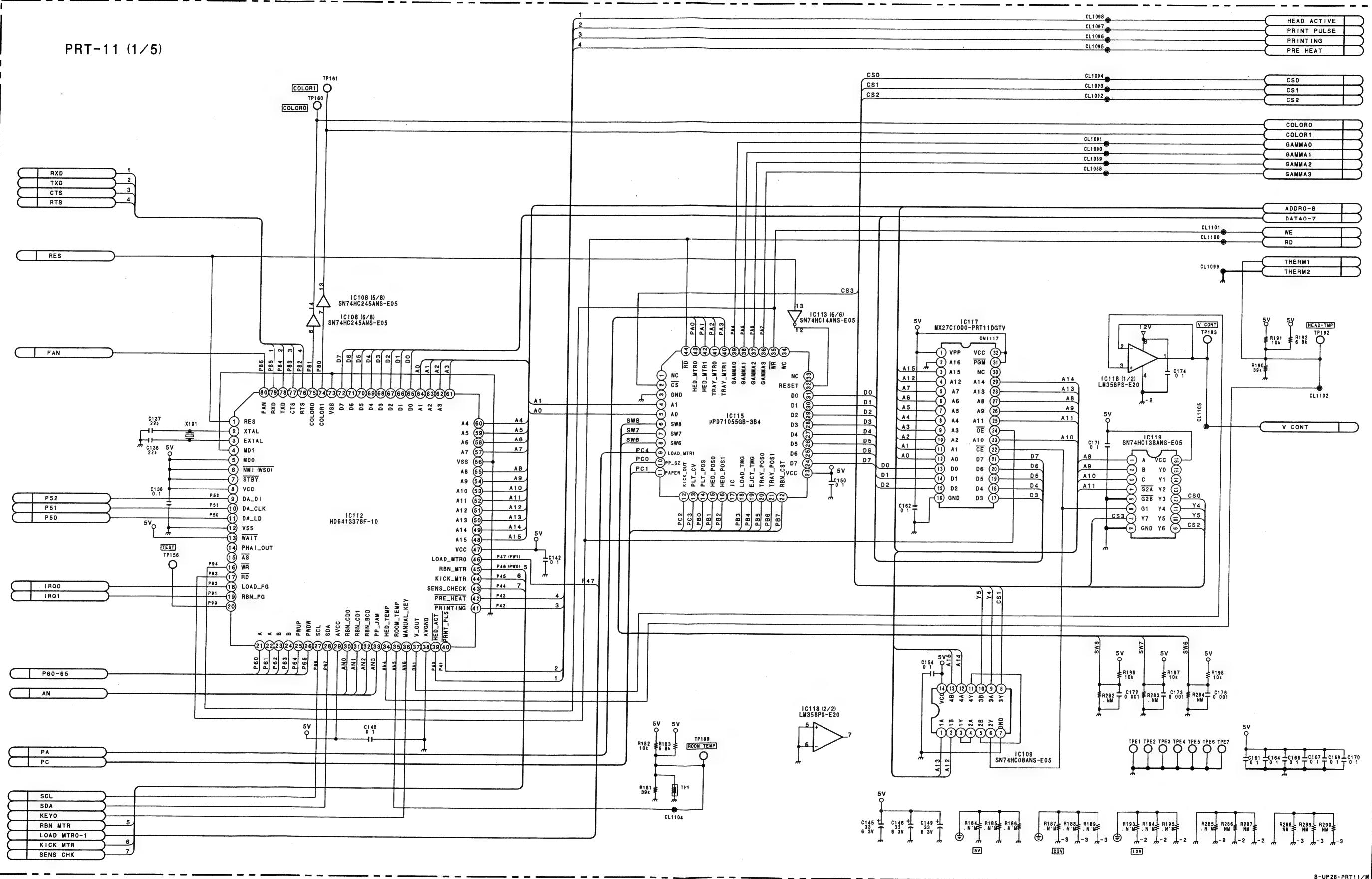
\*: B SIDE



**PRT-11 B SIDE**  
1-666-990-11

## PRINT CONTROL

PRT-11 (1/5)



10-12

10-12

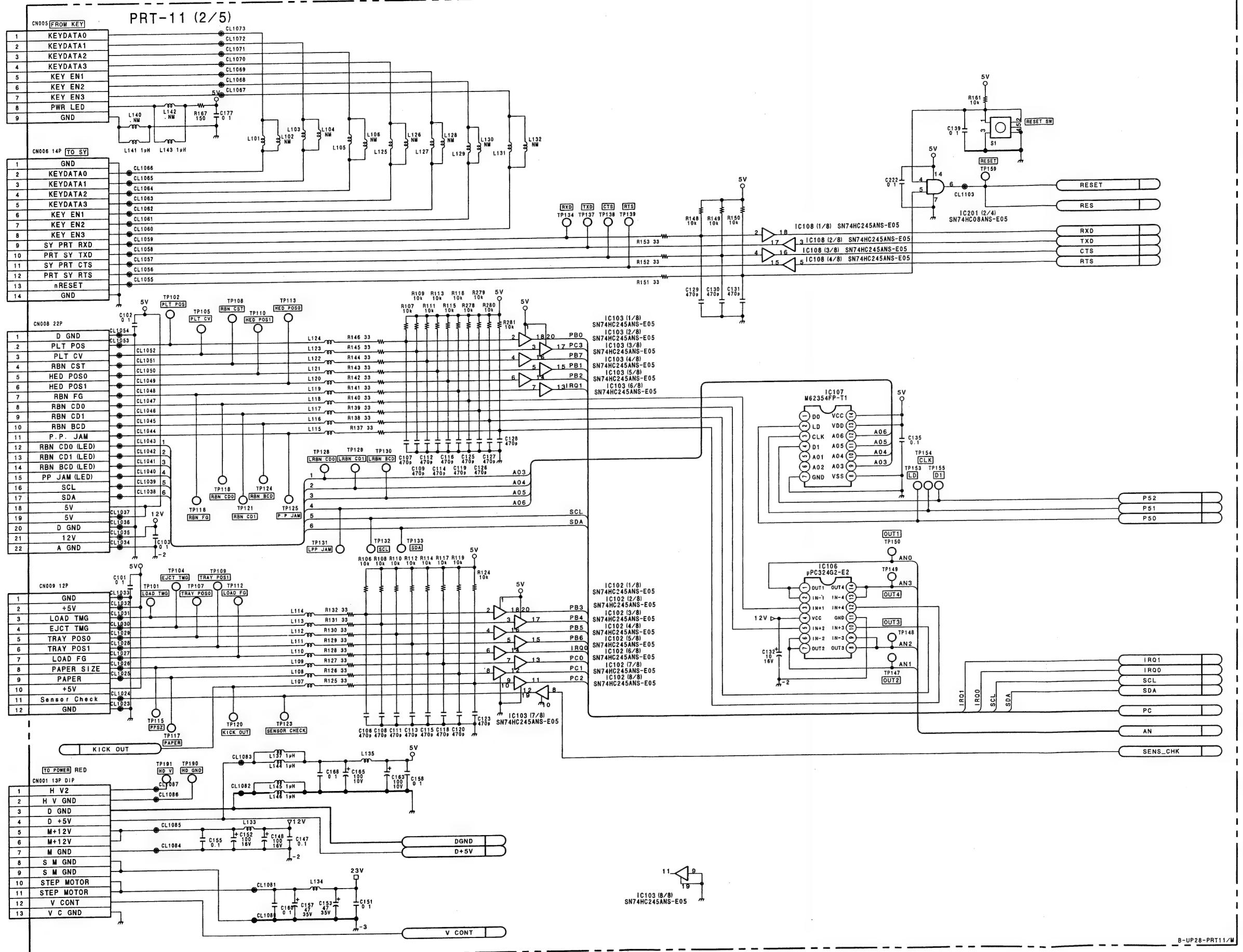
C

1

6

UP-D2550(J)  
UP-D2500(UC,CE)

**PRT-11**



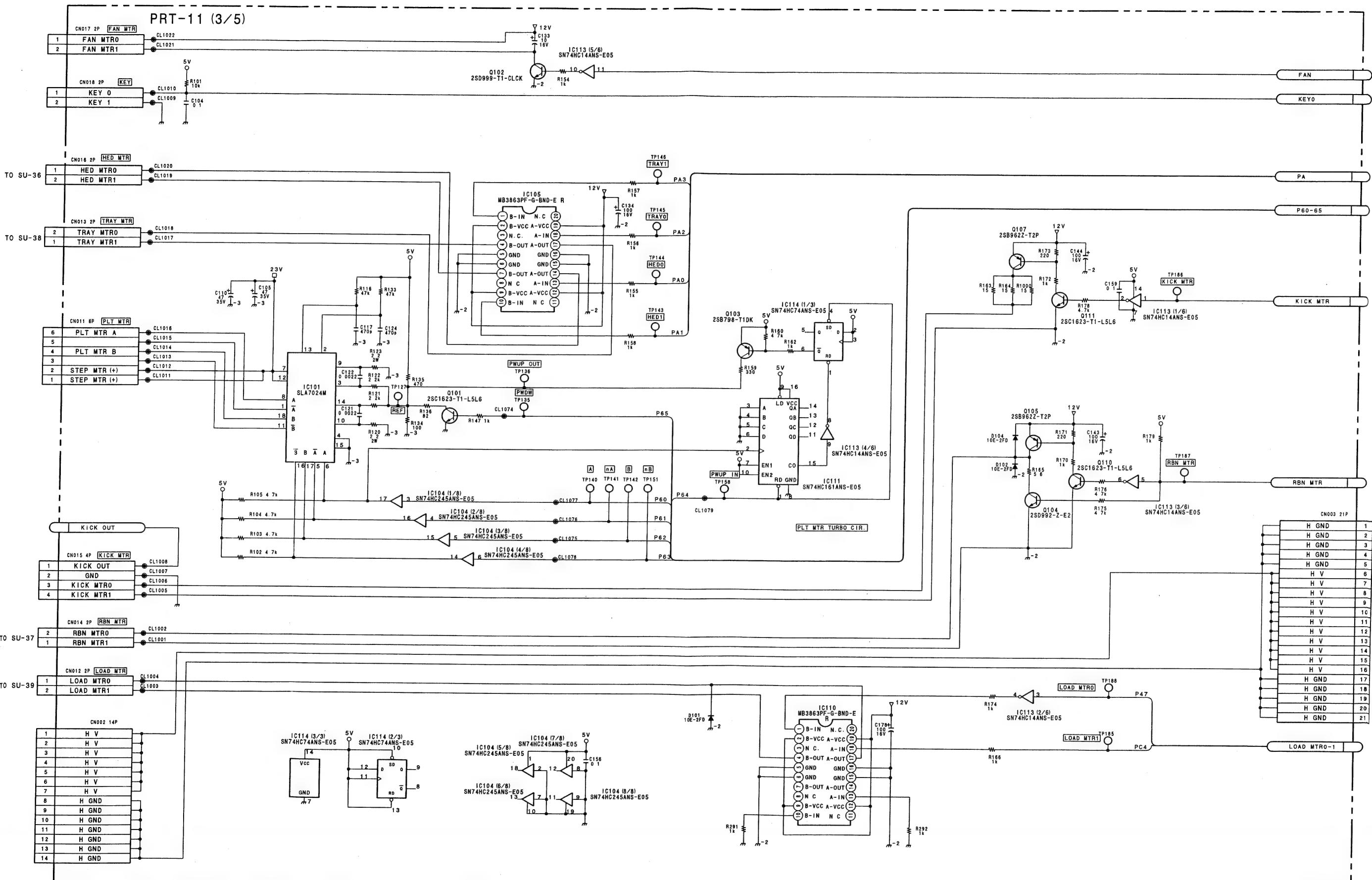
UP-D2550(J)  
UP-D2500(UC,CE)

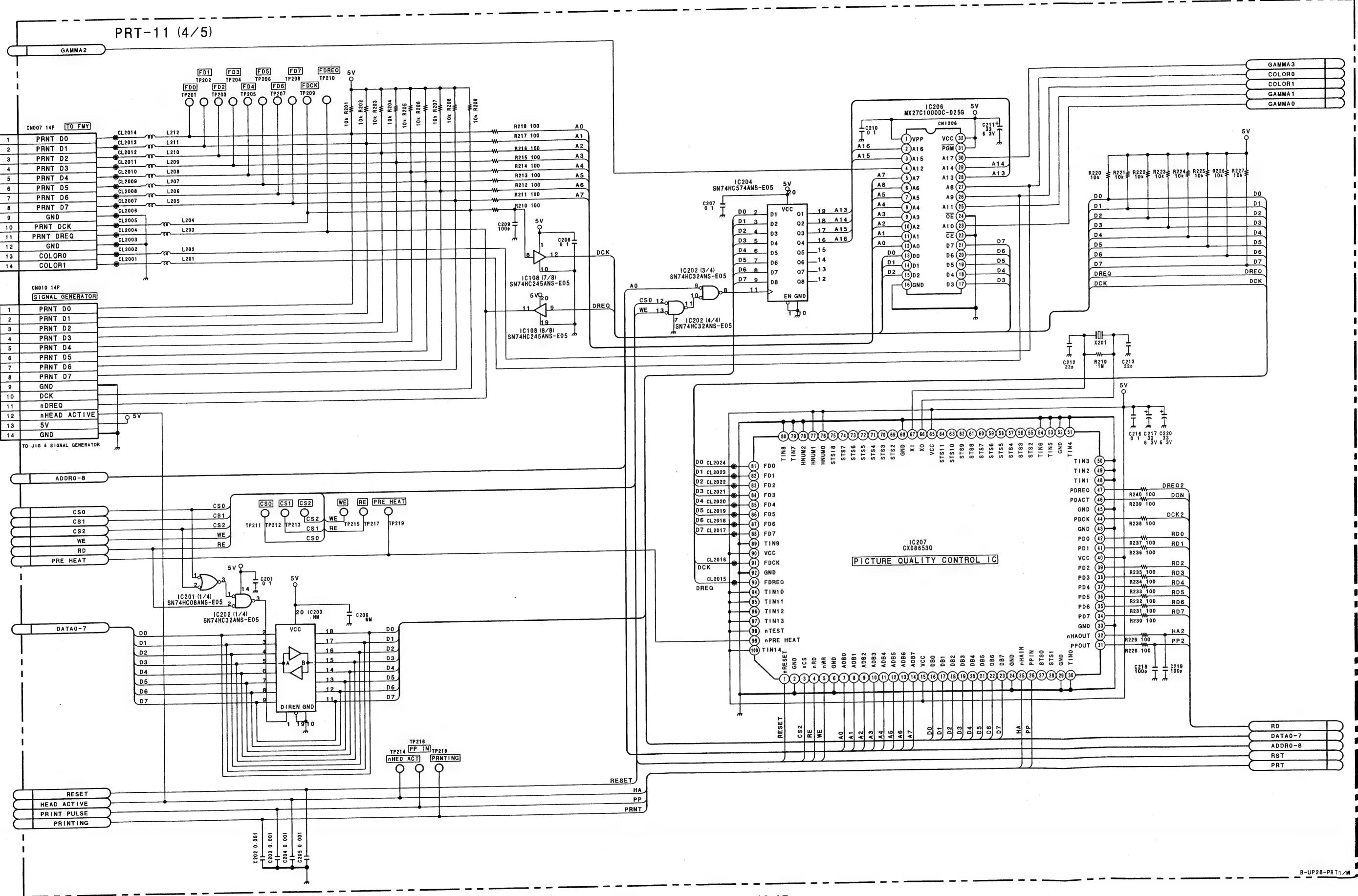
A

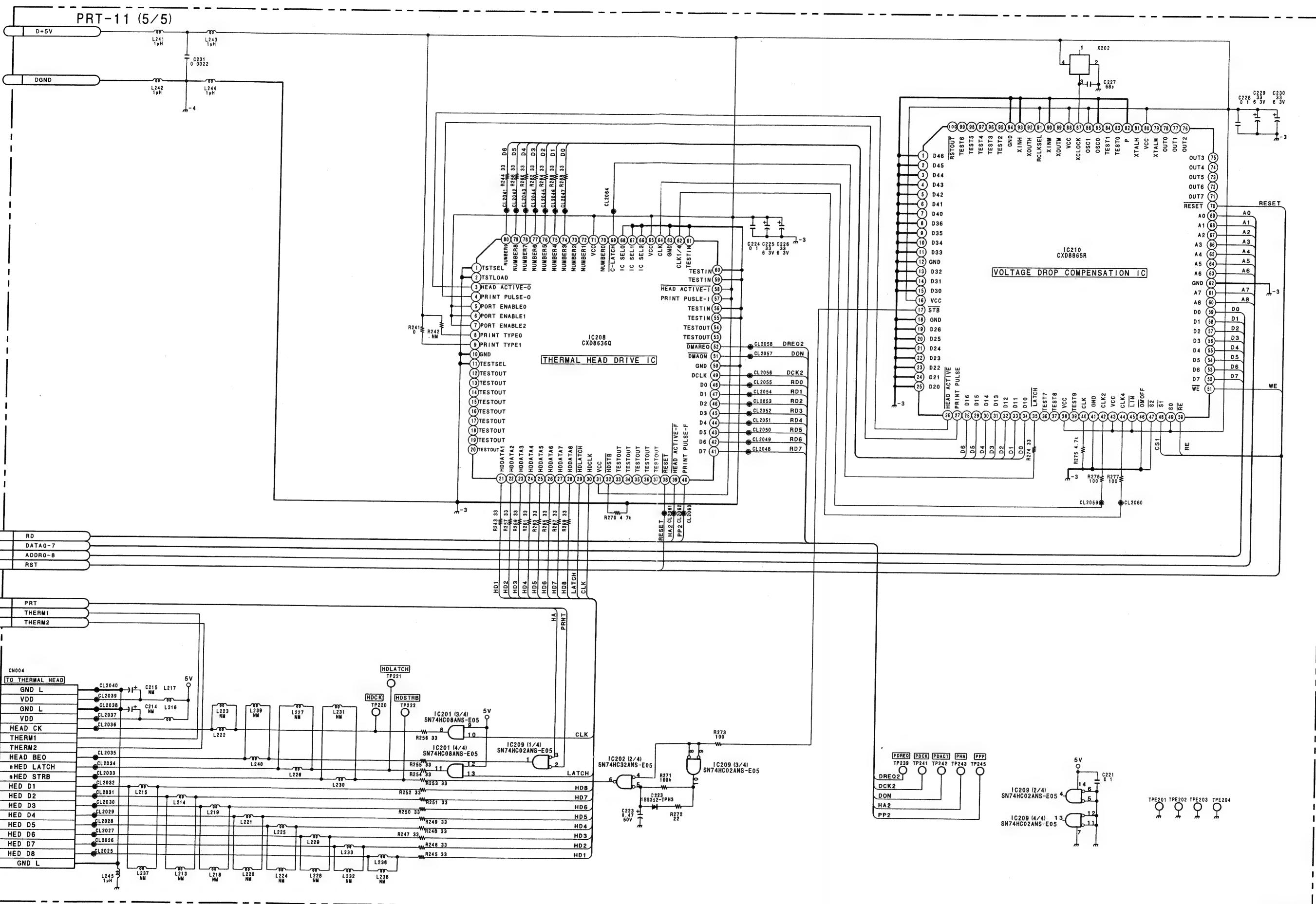
8

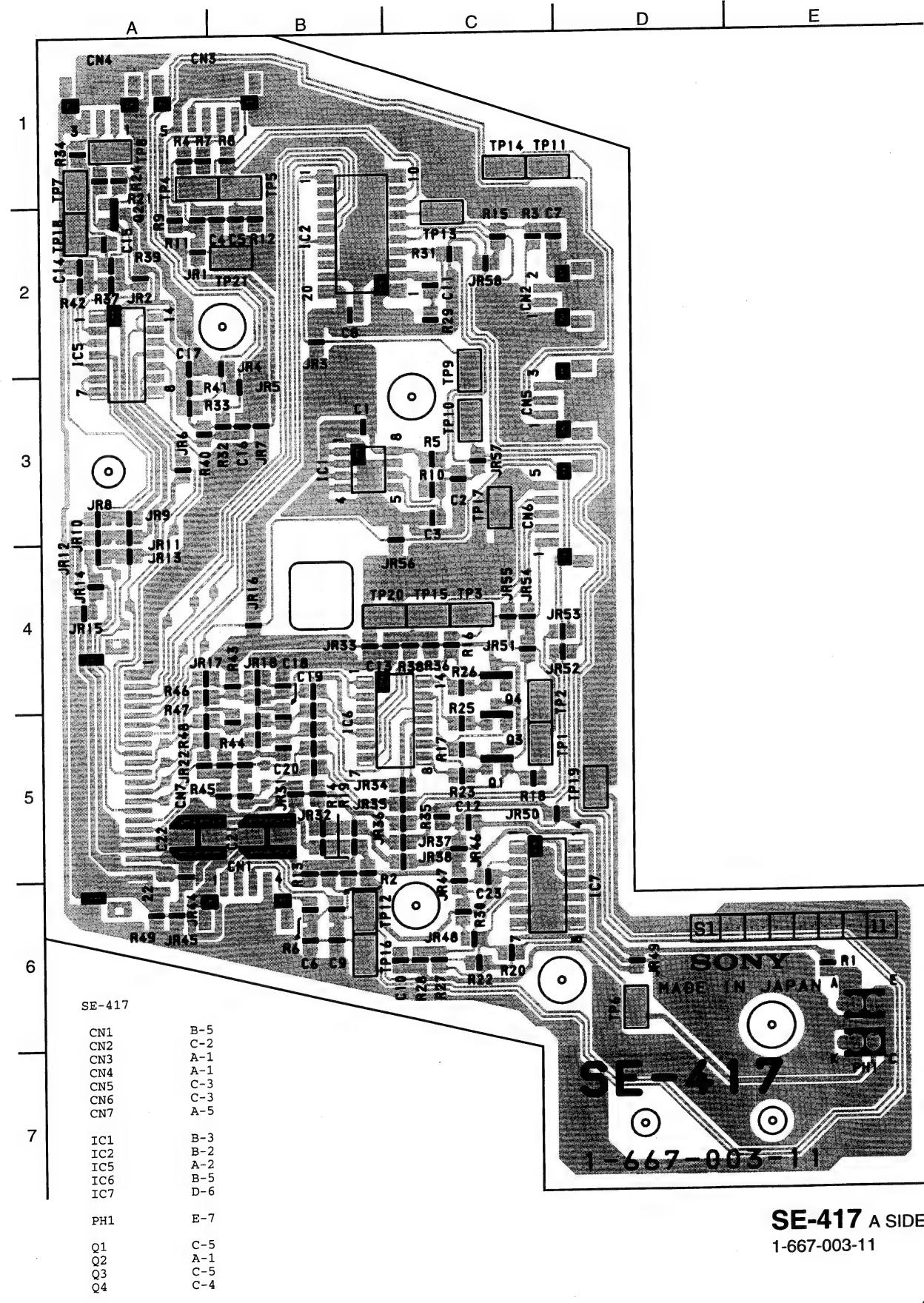
1

4

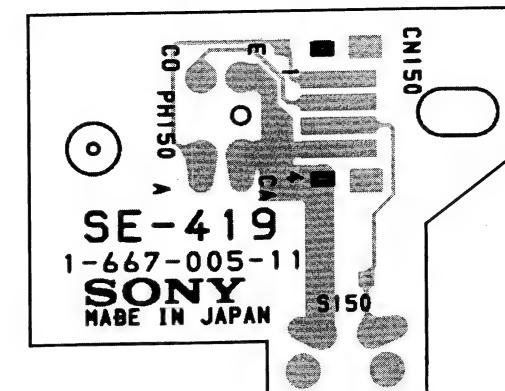
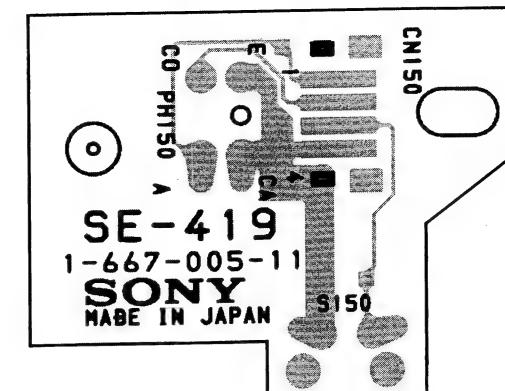
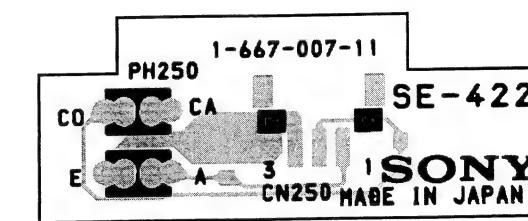
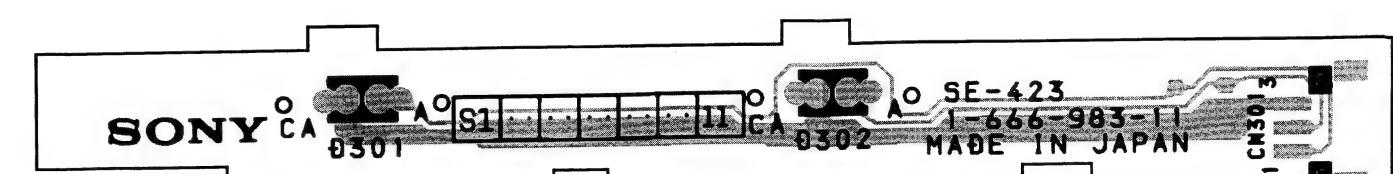






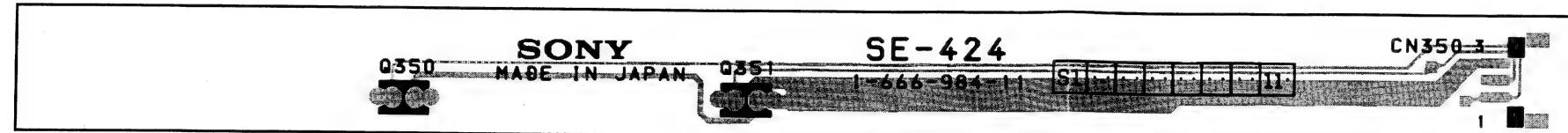
SE-417 A SIDE  
1-667-003-11

10-17

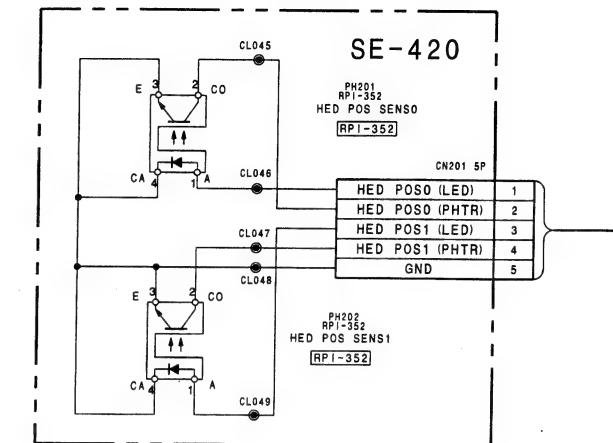
SE-419 A SIDE  
1-667-005-11SE-420 A SIDE  
1-667-006-11SE-422 A SIDE  
1-667-007-11SE-423 A SIDE  
1-666-983-11

## SENSOR

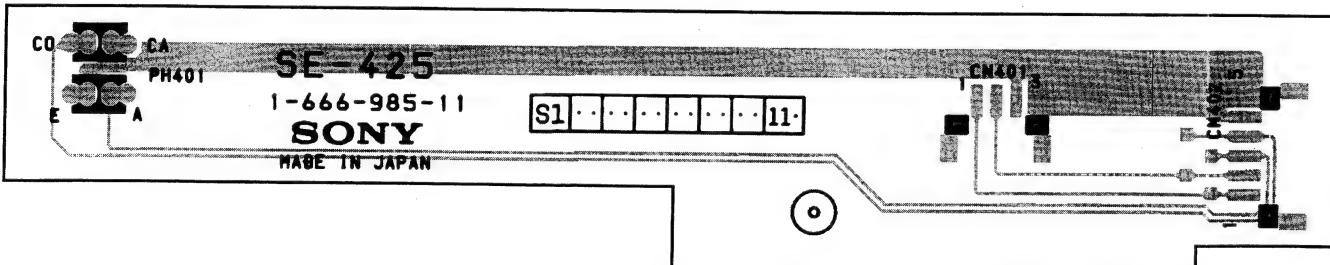
1

SE-424 A SIDE  
1-666-984-11

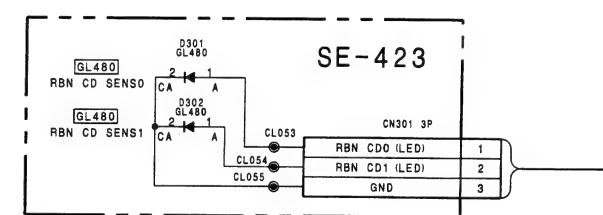
2



3

SE-425 A SIDE  
1-666-985-11

4



5

10-18

10-18

A

B

C

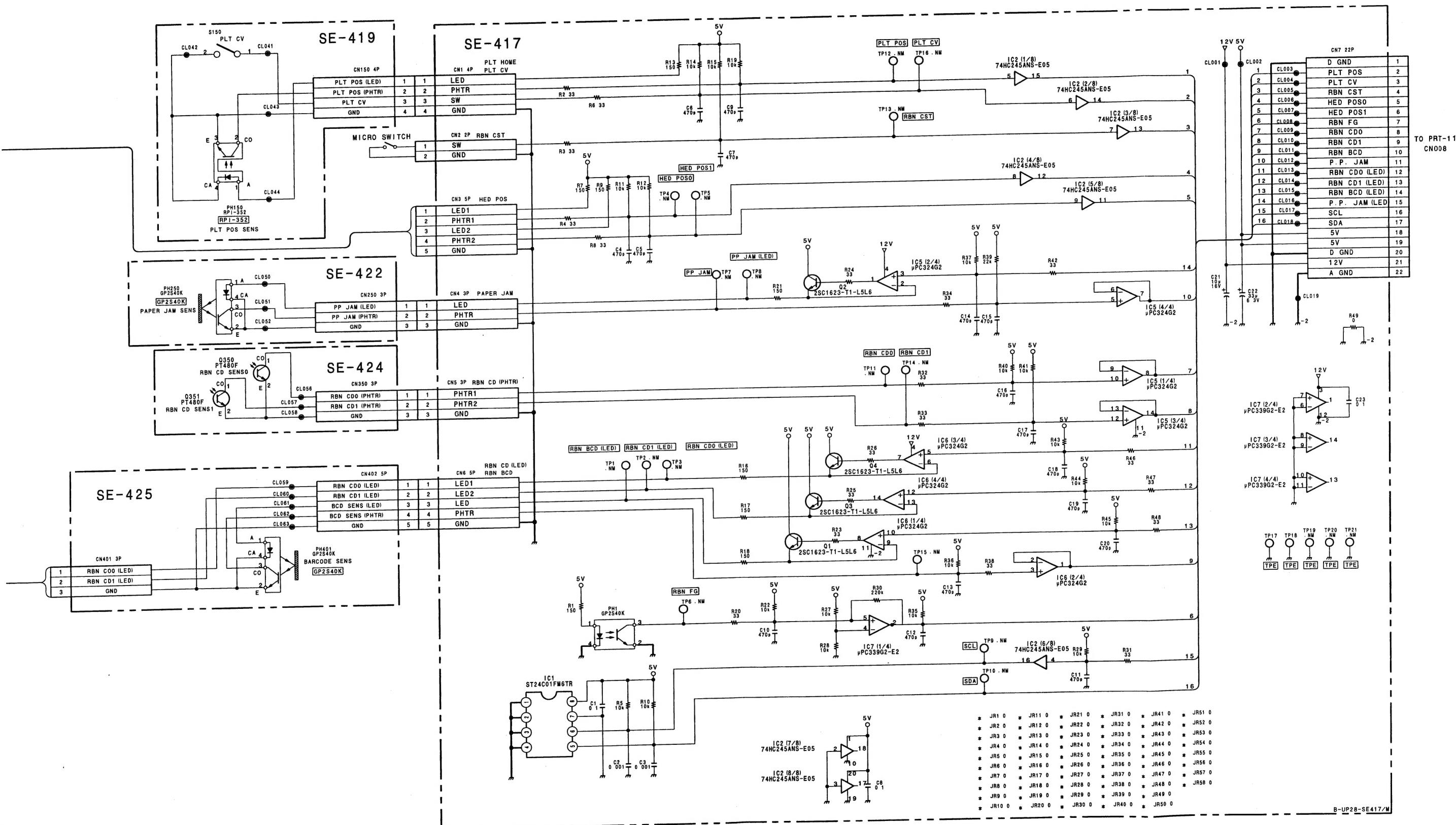
D

E

F

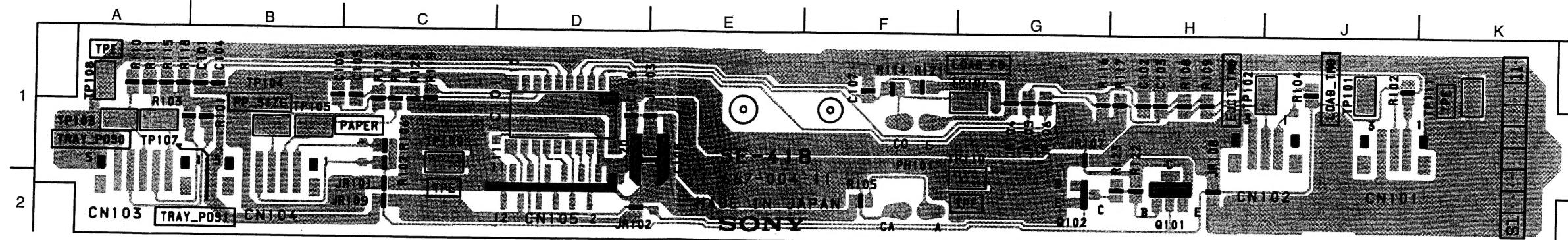
G

UP-D2550(J)  
UP-D2500(UC,CE)  
H

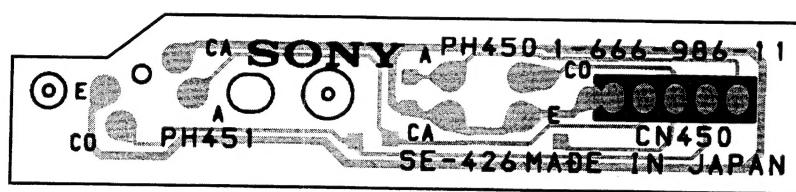


SE-418

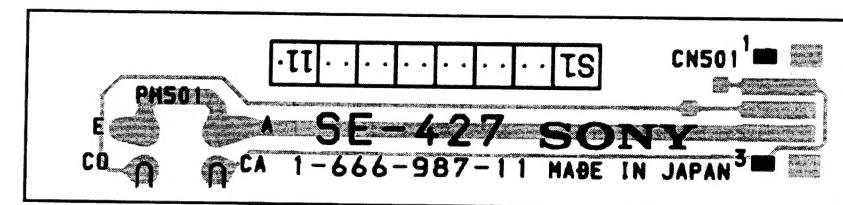
CN101 I-2  
 CN102 H-2  
 CN103 A-2  
 CN104 B-2  
 CN105 D-1  
 IC101 C-1  
 JR101 C-2  
 JR102 D-2  
 JR103 E-1  
 JR104 G-1  
 JR105 G-1  
 JR106 G-1  
 JR107 G-1  
 JR108 H-1  
 JR109 C-2  
 PH101 F-1  
 Q101 H-2  
 Q102 G-2



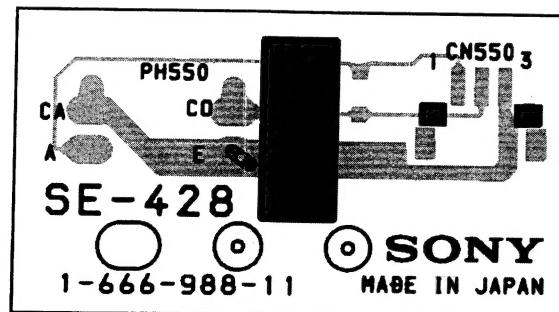
**SE-418 A SIDE**  
1-667-004-11



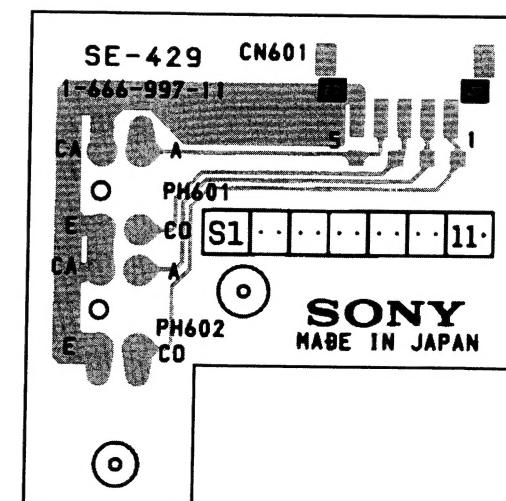
**SE-426 A SIDE**  
1-666-986-11



**SE-427 A SIDE**  
1-666-987-11

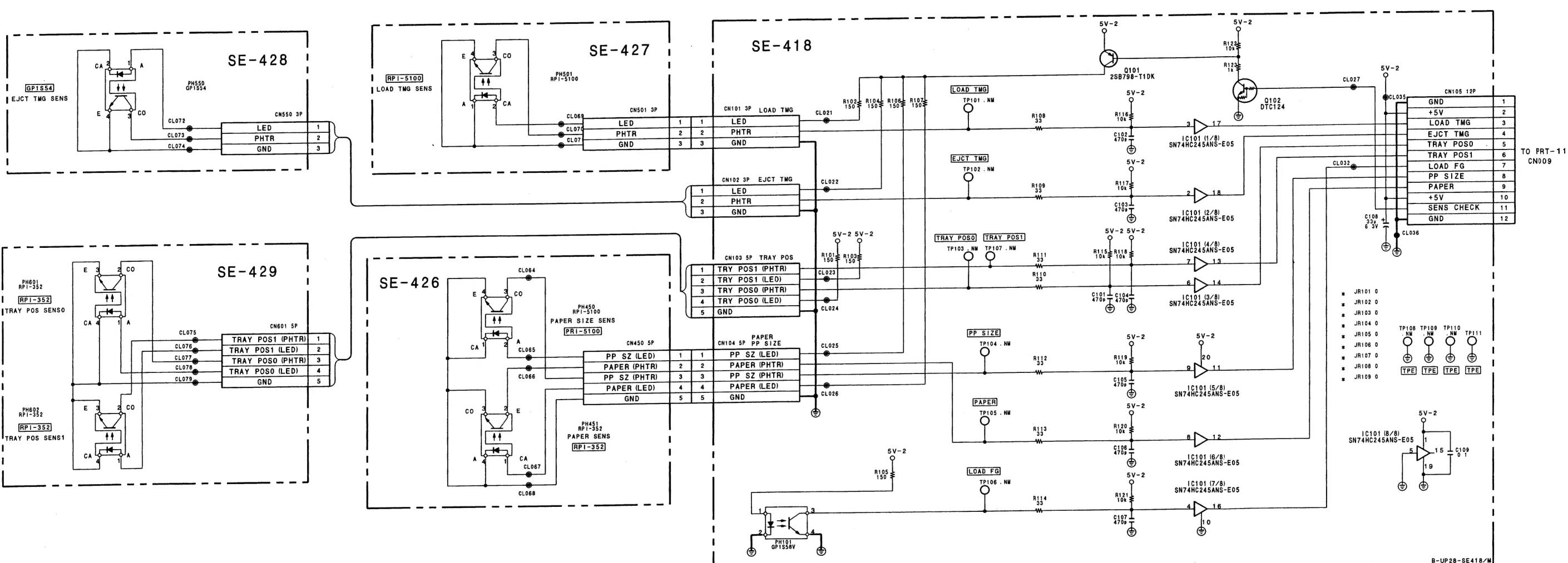


**SE-428 A SIDE**  
1-666-988-11



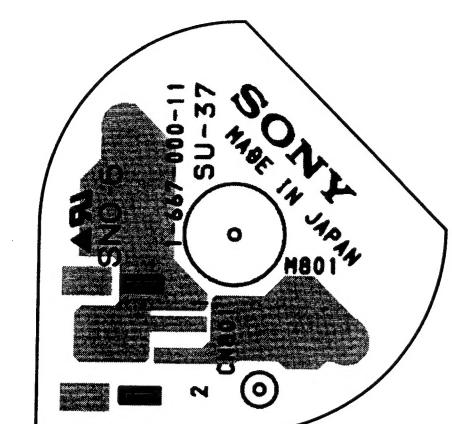
**SE-429 A SIDE**  
1-666-997-11

## SENSOR



## MOTOR

1



2

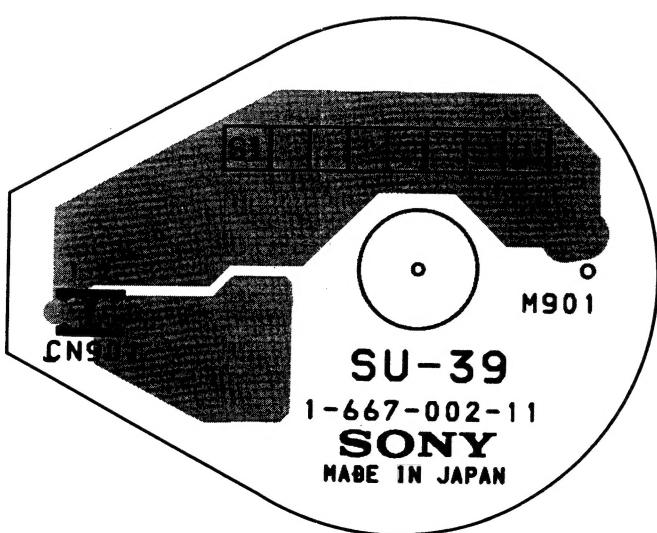
**SU-36 A SIDE**  
1-666-999-11

3



**SU-38 A SIDE**  
1-667-001-11

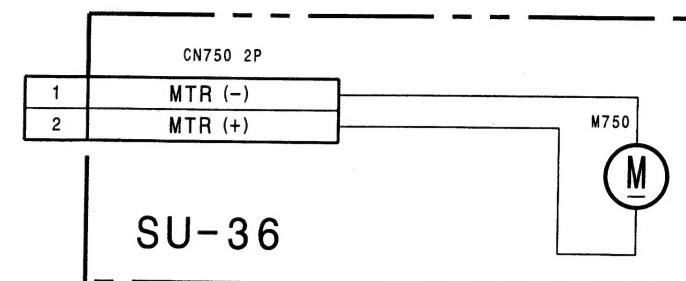
4



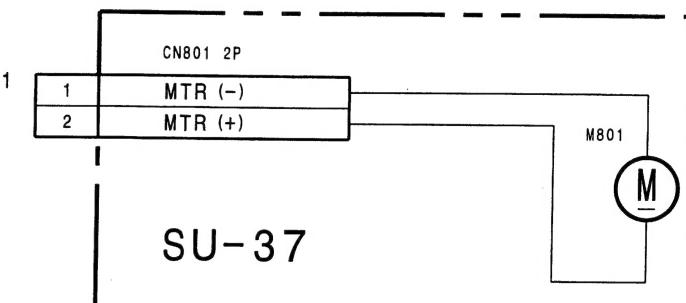
**SU-39 A SIDE**  
1-667-002-11

5

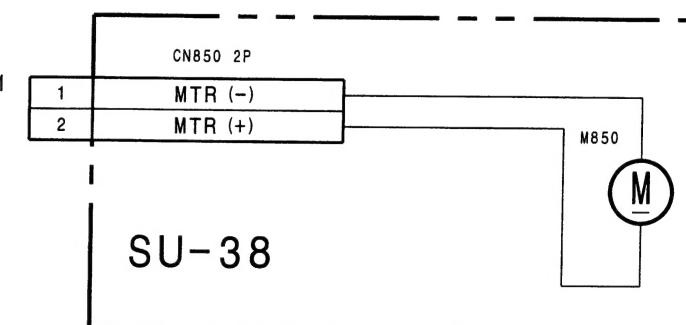
TO PRT-11  
CN016



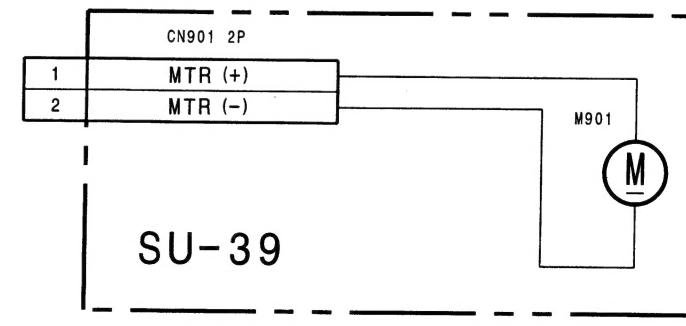
TO PRT-11  
CN014



TO PRT-11  
CN013



TO PRT-11  
CN012



B-UP28-SU36/M